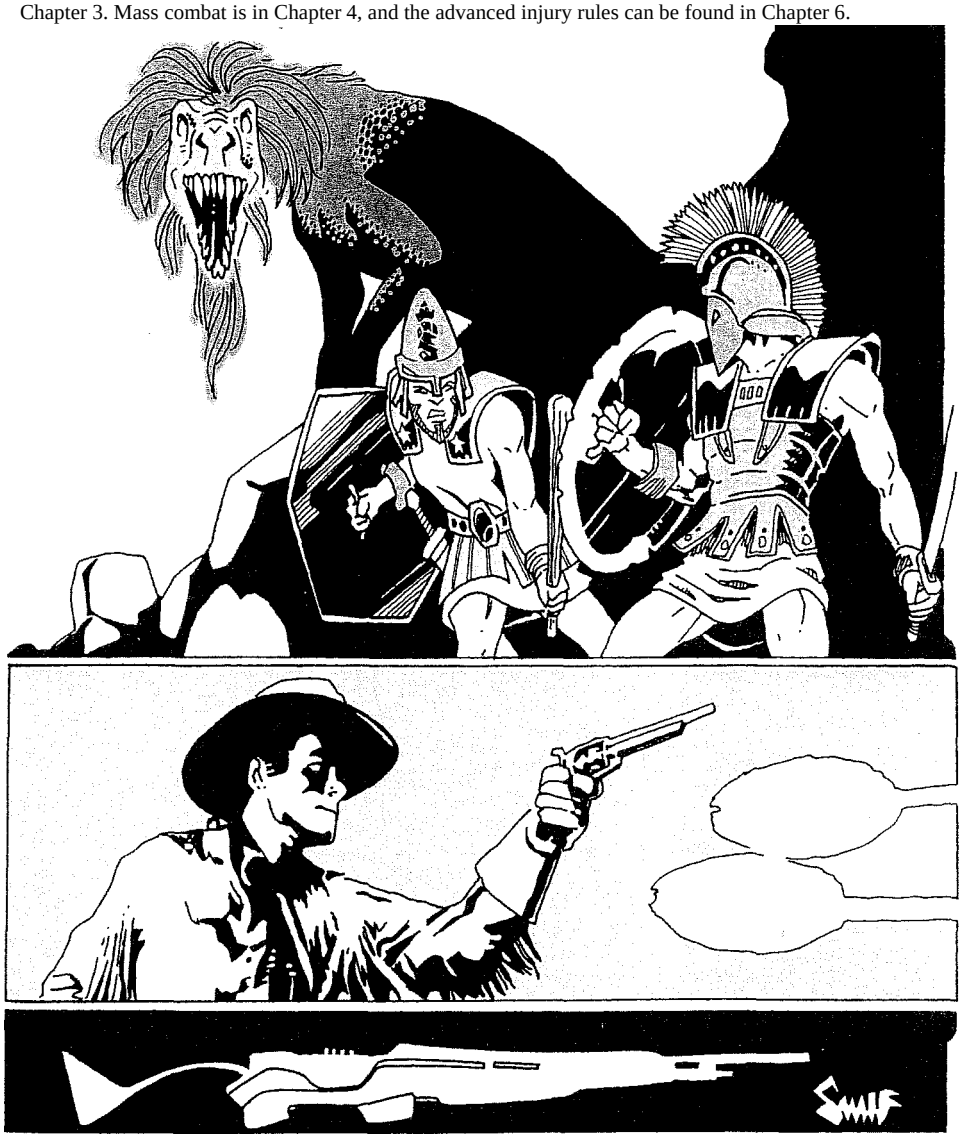
# 2 COMBAT

This chapter contains both clarifications and new rules for the advanced combat system. Most of the rules in this chapter should be regarded as *optional* - while they may be more realistic, or more *fun*, they will add additional complications to combat that not all GMs will wish to deal with. For rules that deal exclusively with weapons and armor, see Chapter 1. Rules for duelling and tournaments can be found in Chapter 3. Mass combat is in Chapter 4, and the advanced injury rules can be found in Chapter 6.



## Understanding Sequences, Turns and Maneuvers

As stated on p. B95, characters take their *turns* in succession, following the combat *sequence.* A character's turn starts when he chooses a *maneuver* and ends when he chooses his next maneuver. For the sake of convenience, a turn is taken to be 1 second of real time. So what does that really mean?

### *Sequences*

The *sequence* is nothing more than a list of all the characters involved in the combat, arranged in the order that they will act. When combat begins, the GM calls upon the players to take their turns (or determines what the NPCs do) in the order given by this list, reading from top to bottom. Once the last character on the list has acted, the GM moves back to the top of the list and starts over again. Thus, the sequence is cyclical, and each character gets exactly one turn on each run through the sequence.

The easy way to determine the sequence involves rolling dice for the priv-ilege of going first (see *The Easy Way,* sidebar, p. B95). The more realistic method - and the one that is more commonly misunderstood - involves having the characters act in order of decreasing Move.

For the sake of the combat sequence, your Move is equal to your Basic Speed (p. B14), minus any movement penalty for your encumbrance level (p. B76), dropping all fractions. The Running skill (p. B48), or advantages such as Enhanced Move (p. CI54) and Super Running (p. CI68), do *not* affect your Move for this purpose; Increased Speed (p. CI26) *does.* The character with the highest Move goes first, then the character with the next-highest Move, and so on. If multiple characters have the same Move, they act in order of decreasing Basic Speed. If two characters have the same Move *and* Basic Speed, they each roll a die and the character that rolls highest acts first.

*Example:* Four characters have the following scores:

| | |
|---|---|
| Dave | Move 5, Basic Speed 6.25 |
| Bill | Move 5, Basic Speed 6.50 |
| Al | Move 6, Basic Speed 6.75 |
| Carl | Move 5, Basic Speed 6.25 |

*Continued on next page...*

# HOW COMBAT WORKS

## Detailed Combat Checklist

Here is a "flow chart" of all the steps necessary to resolve an attack in *GURPS* from the moment you swing the sword or pull the trigger until you know that you have missed, injured or killed your foe. It walks you through the advanced combat system and tries to take into account all of the possibilities. Every effort has been made to include page references to the detailed rules wherever possible. Note that because many maneuvers - especially close-combat maneuvers - use unique rules, these are *not* covered below; this chart is only for actual *attacks* made in melee or ranged combat. Once you have used this chart for a battle or two. you will find that you need to look at it less and less.

**[1]** Start with unmodified weapon skill and go to [2].

**[2]** Apply all environmental modifiers - for bad footing (p. B107), darkness (p. B92), etc. - and go to [3].

**[3]** Apply all personal modifiers - for attacking on the move (p. B117), with your off hand (p. B13) or while using an unfamiliar weapon (p. B43); attacking with an All-Out Attack or a Wild Swing (p. B105); attacking using a weapon in closecombat (p. B111); and for your position (p.B203), shock from wounds (p. B126), etc. - and go to [4].

**[4]** If the attack is a Wild Swing or a randomly-targeted blow (p. B109), go on to [5]otherwise, skip to [6].

**[5]** Roll for hit location (see p. 53 or p. B203).

**[6]** Apply all target modifiers - for cover (p. B118) and obstructing figures (p. B117), hit location (p. 53), relative elevation (p. B123), size (p. B201), striking into a close combat (p. B114), etc.- and go to [7].

**[7]** If the attack is a ranged attack, goto [8]; otherwise, go immediately to [14].

**[8]** Apply all special ranged combat modifiers, including the Speed/Range modifier (p. B201) modified for both elevation and erratic movement (p. B117), and any applicable Rcl penalties (p,B119), and go on to [9].

**[9]** If this attack is opportunity fire taken while watching more than 1 hex (p. B118) or if it is a pop-up attack (p. B116), apply the appropriate penalty and go immediately to [12]; otherwise, go to [10].

**[10]** Did you take at least 1 turn to aim (p. B116) or are you aiming successive groups from an automatic weapon (p. B121)? If so, go to [13]; otherwise, go on to [11].

**[11]** Is your modified skill greater than the SS number of your weapon (p. B115)? If so, skip to [14]; otherwise, continue on to [12].

**[12]** Apply a Snap Shot (p. B115) penalty of -4 (or less, for some ultra-tech weapons - see the individual weapon description for details) and go directly to [14].

**[13]** Apply the Acc bonus of your weapon (p. B115), including any bonuses for high tech sights or scopes (p. 31, and an extra +1 per additional turn of aiming - or per additional group fired from an automatic weapon if aiming successive groups - to a maximum additional +3. Add +1 more if you are *braced.* Now go on to [14].

**[14]** Roll against your modified skill to hit. This can be no greater than 9 if this attack is a Wild Swing or an attack against the wrong target (see pp. B114 B117 and B119). Note the result. If the skill roll succeeds, go immediately to [21] (note that a group from an automatic weapon can hit. with more than one bullet-see p. B120) otherwise, continue on to [15].

**[15]** Did the attack *critically* miss (p. B110). If so, go on to [16], otherwise go to [17].

**[16]** Roll on the appropriate *Critical Miss Table* (p. B202) and note the result. Apply any immediate effects. If you dropped, broke or disabled your weapon go to [52] If you hit. yourself, you are now the target of your attack, go to [28] and assess the damage. Otherwise, go to [19].

**[17]** Did the attack miss by only 1? If so proceed to [18], if not, go to [19].

**[18]** If yon were firing a group of three or more rounds from an automatic weapon (p. B120), a miss by 1 still hits with one round go to [23] If your target was a hit location that lists a "Miss by 1" result (p. 53), you have hit. this new hit. location instead again, proceed to [23]. Otherwise, go to [19].

**[19]** Was the attack a missile weapon or aimed into close combat? If so, proceed to [20], if not, go to [52].

**[20]** Check to see if you have hit. the wrong target. Start with the target nearest to you on a miss with a missile (p. B117) the first target *behind* your intended target on a missile attack that was *dodged* (p. B119) or with a random target if striking into a close combat (p. B114). Return to [1] and attack your new target. Your final modified skill cannot exceed 9.

**[21]** Did the attack *critically* hit. (p. B109)? If so go to [22], otherwise move on to [23].

**[22]** Roll on the appropriate *Critical Hit Table* (p. B202) and note the result (note that this applies to *one* round in a group if firing an automatic weapon). Apply any immediate effects, then go immediately to [28].

**[23]** The target rolls his active defense modified for his position (p. B203), stunning (p. B127), the angle of the attack (-2 from the side, p. B108 or above p. B124) relative elevation (p. B123), retreating (p. B109) and for any feints (p. B105) or wounds (p. B126) that took place since his last turn. If the target did an All-Out Attack or was attacked by surprise, he gets only his PD. If the defense roll fails go to [26]. Otherwise, go to [24].

**[24]** Did the target *critically* succeed on his active defense? If so go immediately to [16]. Otherwise, go on to [25].

**[25]** Was the target's active defense a Dodge? If so, go to [19]; otherwise, go to [52].

## Understanding Sequences, Turns and Maneuvers (Continued)

Since Al has the highest Move, he will act first, Dave, Bill and Carl are all Move 5, so the order in which they act will be determined by Speed. Bill is Speed 6.50 while Carl and Dave are only Speed 6.25, so Bill will act second. Since Carl and Dave have the same Move and Speed, they each roll a die. Carl gets a 5 and Dave gets a 2, so Carl will act third and Dave will act last. Thus, the sequence is:

1. Al Move 6, Basic Speed 6.75
2. Bill Move 5, Basic Speed 6.50
3. Carl Move 5, Basic Speed 6.25 (rolled 5)
4. Dave Move 5, Basic Speed 6.25 (rolled 2)

Note that no matter which method is used to determine the sequence, once it is determined, *it stays the same for the entire battle*. When using the easy way, or when using the realistic way and breaking a tie with dice, dice are rolled only once, at the beginning of the battle. Likewise, If Move has been used to determine the sequence, the sequence does not change, even if the Move of one or more characters changes during the combat as the result of injury changes in encumbrance level or special powers (like magic).

*Continued on next page...*

## Understanding Sequences, Turns and Maneuvers (Continued)

***Turns***

A character's *turn* is an interval of time that starts when the sequence indicates he can act and ends when it indicates he can act again. This means that the interval of time represented by a turn is a different interval for each character: a turn always takes one second, but it is not precisely the *same* second for any two combatants because each fighter starts his turn at a different place in the sequence. It is important to realize that there is no "overall" turn that applies to everyone on the whole battlefield, and that running through the entire combat sequence once does *not* constitute a "turn" of any kind.

*Example:* In the example above, Al's first turn begins when he takes his first maneuver. Bill's first turn begins just *after* Al's, when he takes *his* first maneuver, and so on for Carl and Dave. A turn has passed for Al only when he takes his *second* maneuver of the battle. If all four fighters have taken one maneuver, but no one has taken two, then a turn has not yet passed for anyone, even though all four fighters have acted.

If, during his turn, a character generates an effect that has a duration (e.g., a spell, a super power or even smoke from a grenade), then 1 full second of duration passes for each successive turn taken by the character who produced the effect, regardless of who else it may affect.

*Example:* On Al's first turn. he cast a spell that has a duration of five seconds. It affects both Bill and Carl. That spell will last until *Al's* sixth turn; the duration is not counted in terms of Bill's or Carl's turns.

Continued on next page...

**[26]** Did the target *critically* fail on his active defense? If so, go to [27]. If not, go to [28].

**[27]** If the target Dodged, he falls down. If he Blocked, his shield is now unready. If he Parried, he goes to the *Critical Miss Table* (p. B202). Go to [28].

**[28]** A HIT! Roll the basic damage for your weapon (p. B73). A bullet, or a cutting or impaling weapon, can never do less than 1 hit of damage. Natural attacks and crushing attacks can do 0 damage. Go to [29].

**[29]** Modify the damage result for extra damage - from an All-Out Attack (p. B105), the target's Vulnerability disads, etc. - and multiply it by any multiplier that was given on the *Critical Hit Table*, or any multiplier for a special ammunition type (p. 55) that applies before DR. Go to [30].

**[30]** If the attack is impaling, a bullet or any other attack that does not inflict *knock-back* (p. B106), go to [33]; otherwise, continue on to [31].

**[31]** Apply 1 hex of *knockback* for every 8 points of damage you have rolled. If the target is knocked back at least 1 hex, go to [32]; otherwise, go on to [33].

**[32]** The target must roll versus DX or fall down. Continue on to [33].

**[33]** Apply any *armor divisors* - for armor-piercing bullets, shaped-charge rounds, monowire, etc. - to the target's DR at the hit location you have hit, using the DR that applies to the attack in question (e.g., Kevlar is less effective versus impaling attacks). Now go on to [34].

**[34]** Subtract the modified DR of step [33] from the damage rolled in step [29]; if the result is greater than 0, go immediately to [36]. If the result is less than 0, go immediately to [53]. If the result is *exactly* 0 and you are attacking with a bullet, go immediately to [35]. If the result is *exactly* 0, and your target was the brain, head (including the nose or jaw) or vitals (including groin or kidneys), go imme-diately to [39]. In all other cases, go to [53].

**[35]** If your target is wearing flexible armor (like Kevlar), then for each 5 or 6 rolled on me damage dice, you inflict 1 hit of *blunt trauma* (p. B211). This is treated just like an ordinary crushing attack. If damage was inflicted, go to [36]; otherwise, go to [53].

**[36]** Multiply your damage by any *bonus damage* modifiers (p. B74) for your attack type - cutting or impaling weapons, special ammo types, etc. If the hit location you have hit specifies a damage multiplier for your attack type, use this *instead* (see p. 53). Go to [37].

**[37]** If the hit location that you have hit is subject to blow-through (see p. 53 and p. B109) from your weapon type, reduce the damage to the appropriate blow- through limit and proceed to [38].

**[38]** Subtract the final damage from the target's hit points. The target will have a *shock* (p. B126) penalty equal to this final damage on all DX-based and IQ-based skills next turn. Go to [39].

**[39]** Does the hit location in question have any special damage effects (see *Hit Locations*, p. 53)? If so, go to [40]; otherwise, go to [41].

**[40]** Follow any special rules for special damage effects such as *stunning, knockout, crippling* or *instant death*. See p. 53 for the effects of hitting certain hit locations; see pp. B126-127 for the definitions of these terms. If the foe suffers *instant death* as a result, go to [56]; otherwise, go to [41].

**[41]** Was the damage inflicted greater than the target's HT/2? If so, go to [42]; otherwise, go to [44].

**[42]** The target is *stunned* (p. B127). He must roll versus HT to recover on his turn. Go to [43].

**[43]** The target must roll versus HT or suffer *knockdown* (see p. B127). Go to [44].

**[44]** If the target has 4 or more hit points left, go to [54]. If he has 3 or fewer hits points left, go to [45].

**[45]** The target now has half his usual Move and Dodge scores (seep. B126). Go to [46].

**[46]** If your attack caused your target's hit points to fall to 0 or less, go to [47]. Otherwise, go to [48].

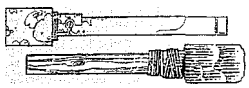
**[47]** The target must roll versus HT (plus or minus any Strong or Weak Will) or fall unconscious, and must roll again each turn until healed to above 0 hit points. See p. B126 for details. Go to [48].

**[48]** If your attack reduced the target's hit points to -HT or less, go to [49]; other-wise, go to [55].

**[49]** The target must roll versus HT or die, once at -HT and once again for each further -5 hit points (see p. B126). He need only do this once, ever, at each thresh-old. If he he fails *any* of these HT rolls, go to [56]; otherwise, go to [50].

**[50]** If your attack reduced the target's hit points to -5xHT (see p. B126), go to [56]. Otherwise, go to [51].

**[51]** The foe critically injured. END.



**[52]** You have missed. END.

**[53]** The blow hits, but has no effect on the target. Unless you were attacking for the purpose of simply touching the foe (as a mage or psi may wish to)... END.

**[54]** The foe is slightly injured. END.

**[55]** The foe is severely injured. END.

**[56]** The foe is dead. END.

## Understanding Sequences, Turns and Maneuvers (Continued)

### *Maneuvers*

A *maneuver* is an action (see pp. B95-97 and 103-107 for examples) taken in combat. Each maneuver that you take marks the beginning of a turn and the end of your previous one. Some things that are *not* maneuvers include defense rolls, resistance rolls, free actions and actions that take "no time" (such as a Fast-Draw roll or activating a super power with the "Instantaneous" enhancement). Note that the term "maneuver" is also used for certain martial arts moves (p. CI162), but the terms are not interchangeable. Not all combat maneuvers can be learned and improved as part of a martial art (e.g., Concentrate, Wait), and not all martial arts moves can be taken as combat maneuvers (e.g., Aggressive Parry, Breakfall).

While active defenses are not maneuvers, defense rolls made against attackers who act after you do are affected by the maneuver you took on your turn, and will continue to be affected until you take a new maneuver on your next turn. This is especially important to realize when choosing the All-Out Attack maneuver: a character who makes an All-Out Attack gets no defenses until everyone else has acted once!

*Example:* On Bill's first turn, he chooses the All-Out Attack maneuver. This means that he will have no defenses at all during his first turn. For one fall turn, he will be defenseless against Carl, Dave and Al!

For simplicity's sake, assume that all characters enter combat with all of their active defenses intact, even if they have not yet taken a maneuver.

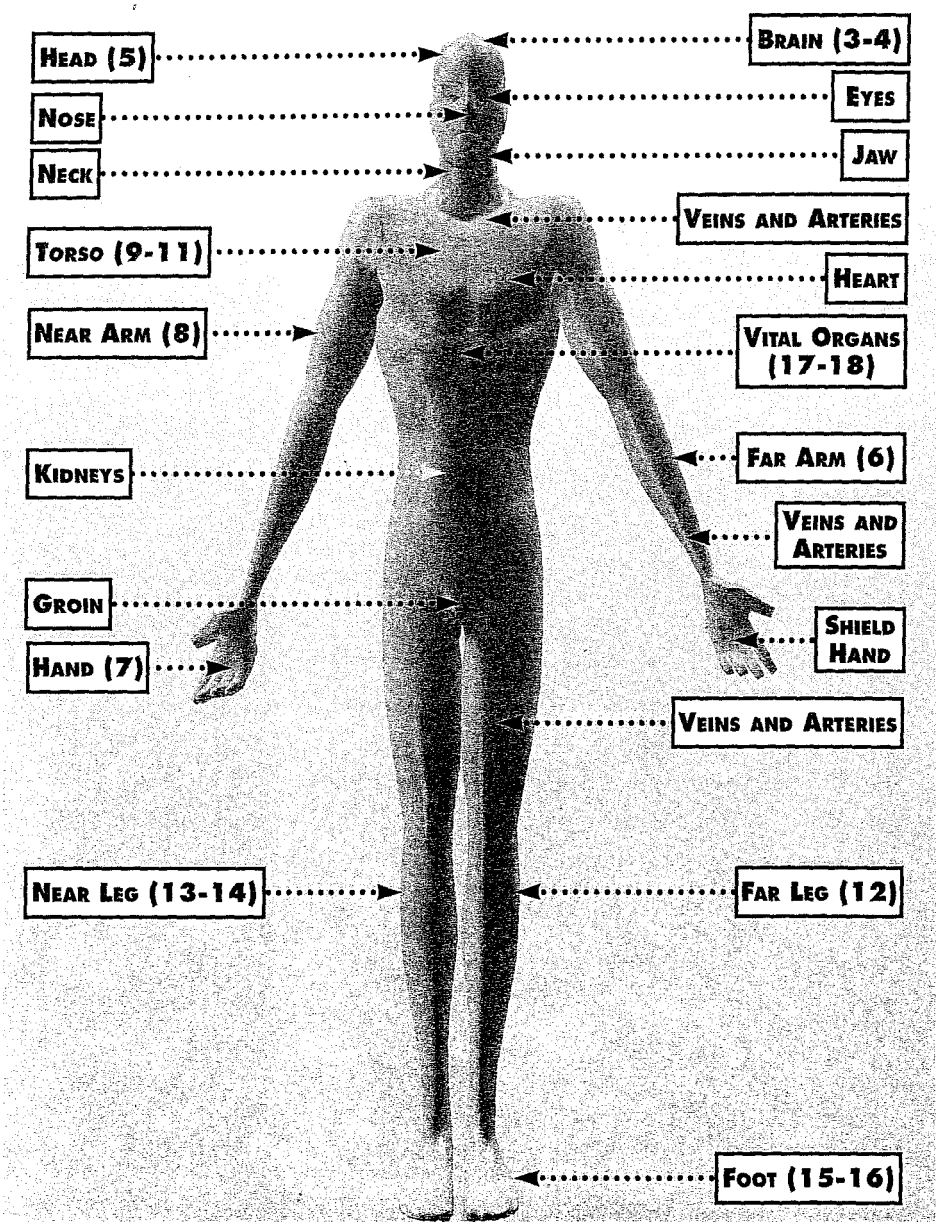
*Example:* Bill uses his All-Out Attack to attack Dave, and even though Dave has not had a turn yet, he can defend normally against Bill.

*Step and Wait:* The Step and Wait maneuver deserves special treatment here. The act of choosing a maneuver defines the beginning of a turn: when a character's turn comes around during the sequence, he *must* choose a maneuver. Step and Wait is just like any other maneuver in this respect, and by choosing it, you are not delaying your *turn* until later - only your attack.

# HIT LOCATIONS

This section presents more detailed hit location rules for humans and humanoids, as well as rules for animals and vehicles.

## Hit Location for Humanoids



**BRAIN (3-4)**
*Modifier: -7*
*Miss By 1 Hits:* TORSO
*Multipliers:* Bullet (x4), Crush (x4), Cut (x4), Imp (x4)
*Blow-Through: -*
*Special Effects:* Skull provides DR 2. Critical hits use *Critical Head Blow Table.* Any blow that does exactly 0 (or more) damage requires a HT roll to avoid *knockout.* Victim *stunned* on hits over HT/3. Victim *knocked out* automatically on hits over HT/2.

**EYES (-)**
*Modifier:* -9 (-10 through helm's eyeslits - only with missile or thrusting attacks)
*Miss By 1 Hits:* HEAD
*Multipliers (except on BRAIN hit):* Bullet (x1), Crush (x1), Cut (x1.5), Imp (x2)
*Blow-Through (except on BRAIN hit):* Bullet (HTx3), Energy (HTx6), Imp (HTx3)
*Special Effects:* Critical hits use *Critical Head Blow Table.* More than 2 hits of damage blinds the eye. An impaling or missile hit (if the missile is less than 1 inch across) gives and automatic BRAIN hit; skull's DR does not protect.

**HEAD or FACE (5)**
*Modifier: -5*
*Miss By 1 Hits:* TORSO
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), lmp (x2)
*Blow-Through:* Bullet (HTx3), Energy (HTx6), Imp (HTx3)
*Special Effects:* No DR from helmets without full-face protection. Critical hits use *Critical Head Blow Table.* Any blow that does exactly 0 (or more) damage requires a HT roll to avoid *knockout.*

**NOSE (-)**
*Modifier:* -6
*Miss by 1 Hits:* HEAD
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), Imp (x2)
*Blow-Through:* Bullet (HTx3), Energy (HTx6), Imp (HTx3)
*Special Effects:* No DR from helmets without full-face protection. Critical hits use *Critical Head Blow Table.* Any blow that does exactly 0 (or more) damage requires a HT roll to avoid *knockout.* Roll against HT-1 (at +5 for High Pain Threshold or at -1 per point of damage tor Low Pain Threshold) or be *stunned.*

**JAW (-)**
*Modifier:* -5
*Miss By 1 Hits:* HEAD
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), Imp (x2)
*Blow-Through:* Bullet (HTx3), Energy (HTx6), Imp (HTx3)
*Special Effects:* No DR from helmets without full-face protection. Critical hits use *Critical Head Blow Table.* Any blow that does exactly 0 (or more) damage requires a HT roll to avoid *knockout.* Roll against HT-2 or HT minus damage (whichever is *lower)* or be *stunned.*

**NECK (-)**
*Modifier:* -5
*Miss By 1 Hits:* TORSO
*Multipliers:* Bullet (x2), Crush (x1.5), Cut (x2), Imp (x2)
*Blow-Through:* Bullet (HTx3). Energy (HTx6), Imp (HTx3)
*Special Effects:* Use the PD and DR of the TORSO (unless a heavy helm is worn. in which case its PD and DR should be used instead). Victim is *stunned* on damage over HT/3. Any crushing blow that does over HT/3 damage requires a HT roll to avoid a crushed throat; if the throat is crushed, the victim must make a HT roll every turn, raking 1 hit of damage if he fails, until he dies or receives medical attention. Any cutting blow that does over HT damage requires a HT roll to avoid decapitation (i.e., *instant death).*

**VEINS and ARTERIES (-)** (Cutting attacks only.)
*Modifier* -4 (radial or femoral artery, in the arm and leg respectively), -7 (jugular vein or carotid artery, in the neck)
*Miss By 1 Hits:* ARM (radial), LEG (femoral) or NECK (jugular or carotid)
*Multipliers:* Cut (x2) for radial or femoral artery; Cut (x3) for jugular vein or carotid artery
*Blow-Through:* Cut (HTx3)
*Special Effects:* Surrounding bone gives +1 PD. On a critical hit, me artery or vein is torn open. This automatically inflicts 1 hit per 2 turns (radial or femoral artery) or per turn (jugular vein or carotid artery), until the victim dies or receives medical attention.

**TORSO (9-11)**
*Modifier: 0*
*Miss By I Hits: -*
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), Imp (x2)
*Blow-Through:* Bullet (HT). Energy (HTx2), Imp (HT)
*Special Effects: -*

**NEAR (WEAPON) ARM (8)**
*Modifier:* -2
*Miss By 1 Hits: -*
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), imp(x1)
*Blow-Through:* Any (HT/2)
*Special Effects:* Damage over HT/2 cripples arm; this *stuns* the target. Excess damage is lost

**FAR (SHIELD) ARM (6)**
*Modifier:* -2 (-4 if a shield is carried)
*Miss By I Hits: -*
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), Imp(x1)
*Blow-Through:* Any (HT/2)
*Special Effects:* Damage over HT/2 cripplesarm; this *stuns* the target. Excess damage is lost.

**HAND (7)** (Roll for left or right.)
*Modifier:* -4
*Miss By I Hits: -*
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), Imp (x1)
*Blow-Through:* Any (HT/3)
*Special Effects:* Damage over HT/3 cripples hand; this *stuns* the target, and anything in that hand is dropped. Excess damage is lost.

**SHIELD HAND (-)** (Only if a shield is carried; otherwise, see HAND.)
*Modifier:* -8
*Miss By 1 Hits: -*
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), Imp(x1)
*Blow-Through:* Any (HT/3)
*Special Effects:* Damage over HT/3 cripples hand; this *stuns* the target. Excess damage is lost.

**VITAL ORGANS (17-18)** (Missile and thrusting attacks only.)
*Modifier: -3*
*Miss By 1 Hits:* TORSO
*Multipliers:* Bullet (x3), Crush (x1), Cut (x1), Imp (x3)
*Blow-Through:* Bullet (HTx3), Energy (HTx6), Imp (HTx3)
*Special Effects:* Any crushing blow that does exactly 0 (or more) damage requires a HT roll to avoid *knockout.* Impaling or bullet attack have a 1 in 6 chance of hitting the HEART instead.

**HEART (-)** (Missile and thrusting attacks only.)
*Modifier: -4*
*Miss By I Hits:* TORSO
*Multipliers:* Bullet (x3), Crush (x1), Cut (x1),Imp (x3)
*Blow-Through:* Bullet (HTx3), Energy (HTx6), Imp (HTx3)
*Special Effects:* On any bullet or impaling hit that does damage equal to or greater than HTx3, an additional HT roll is required to avoid *instant death.*

**KIDNEYS (-)** (Only from behind. Missile and thrusting attacks only.)
*Modifier:* -4
*Miss By I Hits:* TORSO
*Multipliers:* Bullet (x3), Crush (x1.5), Cut (x1), Imp (x3)
*Blow-Through:* Bullet (HTx3). Energy (HTx6), Imp (HTx3)
*Special Effects:* Any crushing blow that do exactly 0 (or more) damage requires a HT roll to avoid *knockout.*

**GROIN (-)** (Missile and thrusting attacks only.)
*Modifier:* -3
*Miss By I Hits (roll 1d):* TORSO (1-2), NEAR LEG (3-4) or FAR LEG (5-6)
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), Imp (x2)
*Blow-Through:* Bullet (HT), Energy (HTx2), Imp (HT)
*Special Effects (human males only):* Use the PD and DR of the armor on area 11 (lower torso). On a hit, make a HT roll at -1 for every point of damage or be *stunned.* Make a unmodified HT roll to avoid *knockout*. High Pain Threshold gives +5 to these rolls; Low Pain Threshold *doubles* the penalties.

**FAR LEG (12)**
*Modifier:* -2
*Miss By I Hits: -*
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), Imp(x1)
*Blow-Through:* Any (HT/2)
*Special Effects:* Damage over HT/2 cripples leg; this *stuns* the target, and a two-legged target falls down. Excess damage is lost.

**NEAR LEG (13-14)**
*Modifier:* -2
*Miss By I Hits: -*
*Multipliers:* Bullet (x1), Crush (x1), Cut (1.5), Imp(x1)
*Blow-Through:* Any (HT/2)
*Special Effects:* Damage over HT/2 cripples leg; this *stuns* the target, and a two-legged target falls down. Excess damage is lost.

**FOOT (15-16)** (Roll for left or right.)
*Modifier:* -4
*Miss By I Hits: -*
*Multipliers:* Bullet (x1), Crush (x1), Cut (x1.5), Imp(x1)
*Blow-Through:* Any (HT/3)
*Special Effects:* Damage over HT/3 cripples foot; this *stuns* the target, and a two-legged target falls down. Excess damage is lost.

## Cover Value of Some Common Materials

To determine the DR of fortifications, multiply the *cover value* on the table below by the *square* of the cover's thickness in inches and round *up*. If the damage, modified by weapon type for penetration, is half or less of the DR, it glances off hard materials or is buried in soft materials, and does no damage to the fortification.

***Cover Table***

| *Material* | *PD* | *Cover Value* |
|---|---|---|
| Loose Dirt | 0 | 1/7 |
| Hard-Packed | 0 | 1/4 |
| Moist Sand | 0 | 1/4 |
| Gravel | 1 | 1/3 |
| Soft Wood | 0 | 1/3 |
| Hard-Wood | 1 | 1/2 |
| Brick | 2 | 3/4 |
| Stone | 2 | 1 |

*Example:* A foot-thick (12-inch) barrier of sandbags ("moist sand") provides 12 x 12 x 1/4 = DR 36. It has PD 0.

## Dodging Explosions

If a person is caught within the radius of an explosion or similar area-effect attack, he is normally hit automatically. However, the GM may allow a Dodge and Retreat (with the usual +3 bonus, but ignoring PD). Success means that person can dodge, leap, drop, dive or roll up to 1/5 Move (minimum 1 hex) away from the explosion. While this is often not enough to escape an explosion's radius, it may be enough to throw oneself into a trench or behind cover, which can absorb the blast!

# Hit Location for Animals

While it would be impossible to generate a hit location table for every type of animal which might be encountered, some general guidelines can be offered:

For animals that stand on *two* legs, use the *Hit Location for Humanoids* roles on p. 53, with modifiers for the creature's size (e.g., an additional -1 for a dog-sized creature, or +3 for *Tyrannosaurus rex).* Make whatever modifications seem necessary for the specific situation.

For instance, treat the tail of a kangaroo, or any other two-legged creature that uses its tail for balance, as a third leg. On a roll of 12-14, the legs *or* tail are hit; roll a die to determine which (1-2, left leg; 3-4, right leg; 5-6, tail). If the tail is crippled, the animal will have difficulty keeping its balance - DX and Move are reduced by 1/3, and a kangaroo will no longer be able to lean back on its tail to kick with both feet.

When using the random locations for *quadrupeds,* roll 2 dice. Subtract 2 from the die roll if attacking from the front, add 2 if attacking from the back, and then consult the *Body Parts for Quadrupeds* table, below. The hit penalties on this table already take size modifiers into account.

If an animal does not seem to fit either the table for humans or the table for quadrupeds, the GM should be able to work out appropriate hit penalties using some combination of these tables.

## body parts for quadrupeds

| *Random Location* | *Body Part* | *Hoofed Animals* | *Massive Herbivores* | *Med./Lg. Carnivores* | *Small Animals* |
|---|---|---|---|---|---|
| 2-4 | Foreleg* | -1 for large, -2 lor small | -1 | -3 | -4 |
| - | Forefoot or Forepaw | -4 | -3 | -5 | -6 |
| 5 | Head | -4 | -2 | -5 | -6 |
| - | Nose or Trunk | # | -8 | -10 | -12 |
| 6 | Neck | -5 | -4 | -7 | -8 |
| 7-9 | Body | 0 | +1 | -1 | -2 |
| - | Vitals | -3 | -2 | -4 | -5 |
| 10-12 | Hind Leg* | -1 for large -2 for small | -1 | -3 | -4 |
| - | Hind Foot or Hind Paw | -4 | -3 | -5 | -6 |

# No special effect.

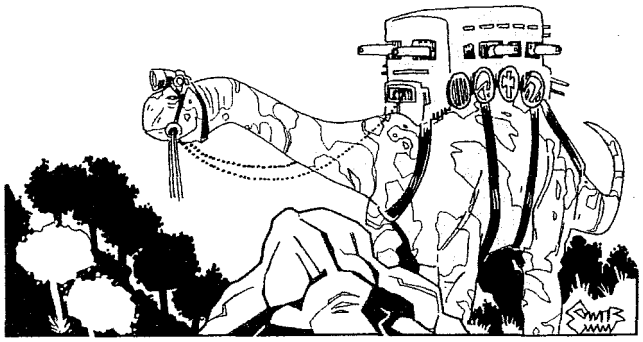
* On a natural 2 or 12, foot or paw is hit. In any case, roll for left or right.

In general, use the same rules for hit location and injury *effects* as for humans, with these exceptions:

***Head/Brain:*** The skull provides a natural DR of 2 in addition to the creature's normal DR. Most horned beasts (e.g., bulls, rams) have thicker skulls, providing a natural DR of 3 and making them harder to stun. These herbivores are *stunned* on total hits over 1/2 their hit points, and are *knocked out* on total hits over 3/4 their hit points. They also get a +2 to their HT rolls to avoid being *knocked out* by a head blow.

***Nose:*** Very tender in many carnivores, especially canines. Any hit to the nose stuns the animal. Damage over 2 points is lost. The GM may (if desired) make a reaction roll to see if the animal flees or is enraged.

***Trunk:*** Damage over 1/4 of hit points will cripple a trunk. Anything less enrages the animal; any further attacks which it makes will be All-Out Attacks.



***Leg, foot or paw:*** Crippling damage does not necessarily cause a four-legged animal to fall. If the animal makes a successful roll against DX-3, it retains its footing. It may not attack with a wounded foreleg, nor may it attack with the other foreleg unless it can easily rear onto its hind legs, like a bear. It attacks at DX-3 and does only half damage. With a wounded hind leg, the animal attacks at DX-3, but does normal damage. Speed in either case is reduced by 3.

Hooves give an animal's feet a natural DR of 1.

# Hit Location for Vehicles

An attacker can choose what part of a vehicle he wishes to attack, or the hit location may be chosen randomly. (It is suggested that random hit location be used for indirect fire, for any fire beyond 1/2D range, and - at the GM's option - for automatic fire.) In either case, use the table below. If a rolled location does not exist or could not be hit. treat the result as a body hit. If a result covers multiple locations (e.g., 5 is rolled but the vehicle has several small turrets or superstructures), roll randomly among them to determine which one was actually hit.

The terms used on the table below are compatible with those in *GURPS Vehicles.* If you are unsure whether a vehicle has one of the features below, then it probably *doesn't.*

## hit location for vehicles table

| *Random Location* | *Hit Location* | *Hit Penalty* |
|---|---|---|
| 3-5 | A small turret, small gasbag or small superstructure. | -5 |
| 6,8 | An arm, pod or external mount | -2 |
| 9,11 | The body. | 0 |
| 7,10 | A large turret, large gasbag or large superstructure. | -1 |
| 12-14 | A wing, GEV skirt, SEV wall, leg, track, halftrack or skitrack. | -2 |
| 15-16 | A mast, skid, wheel or rotor. | -4 |
| 17-18 | A vital area. | -6 |

Note that the penalties are in addition to the vehicle's Size Modifier. Thus, a large turret on a vehicle with a +3 Size Modifier is actually at +2 to hit.

A small turret, superstructure or gasbag is one whose volume is under one-fifth the vehicle's total volume; a large one has a volume of at least one-fifth the total vehicle volume.

## Bullet Damage

Firearms damage is written as "die plus adds" (see *Basic Weapon Damage*, p. B73) and expressed as "hits" or "points of damage." Bullets always do at least 1 point of basic damage; e.g., a roll of 2 for a bullet that does 1d-4 basic damage is 1 hit Bullets do two things, *penetrate* and *wound.*

***Penetration****:* This is a measure of how far the bullet will go into a given material. For *GURPS,* it is determined by a comparison of points of damage (as modified by *Bullet Type*) to Damage Resistance (also modified by *Bullet Type*). Subtract the DR from the damage at the time of impact; this points left are how much damage the bullet can still do on the far side of whatever it hit. Penetration applies equally to living or non-living things. Since a bullet makes a small hole, the hit points of an inanimate object (see p. B125) can be disregarded The resistance to penetration of a given material varies approximately with the square of the thickness. Two inches is four times as hard to penetrate as one inch, three inches is nine times as hard to pene-trate as one inch (see sidebar, p. 54).

***Wounding:*** This is determined by the comparison of points of damage (as modified for *Bullet Type*, *Bullet Size* and *Hit Location*) to hit points. If the target is wounded enough, it is killed. Subtract the points of damage (as modified) from the target's Hit Points. This may be a negative number (see p. B 126).

### *Bullet Type*

There are three bullet types: *expanding solid* and *armor-piercing.*

***Expanding Bullets:*** These are constructed (soft point, hollow point, pre-fragmented, etc.) so that they massively deform and make a larger wound cavity in living tissue. Remaining: points of damage after DR is subtracted, are multiplied by 1.5. Because of this expansion, they are nod as good at penetrating deeply. Expanding bullets double the DR of any thing they hit that already has DR. These give a DR of 1, before any wounding damage is assessed; to most things they hit that are not protected by DR, such as the human torso and limbs. GMs determine what things, such as soap bubbles and sin-gle sheets, of typing paper, don't get a DR of 1.

Damage multiplication depends on actually getting expansion; at handgun and submachine gun velocities this is problematic. There is only a 50% chance that a pistol or submachine gun expanding bullet will get the multiplier. Roll 1d: on 1-3, the bullet expands. An expanding bullet that does not expand is treated as a solid bullet (see. below).

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## Bullet Damage (Continued)

Expanding bullets give -1 to the Malf of any semi-automatic fire and -2 to the Malf of any full-automatic fire.

Expanding bullets pay for their larger wound channel with decreased penetration, sometimes so much less that they cannot reach vital organs even with a hit to the body. On a shot to the vitals, if the remaining damage, *after* subtracting the DR of armor or cover, but *before* multiplying damage for bullet type, is less than the target's HT/4 from in front or HT/2 from the side, it is counted as a hit to the torso rather than a hit to the vitals.

*Solid Bullets:* Solid bullets give no modifier to either penetration or wounding. DR is subtracted from points of damage to determine penetration; points of damage are subtracted from Hit Points to determine wounding effect. For simplified gaming, the GM can rule that all bullets are treated as solids.

*Armor-Piercing Bullets:* Armor-piercing bullets are specifically designed to penetrate. They are made of dense, hard materials that are very difficult to deform. They halve the DR of anything they hit, but damage that penetrates DR is also, halved.

***Bullet Size***

There are, four classes of bullet size. Bullet-size modifiers affect only wounding, they have no effect on penetration.

*Less than .34 caliber at low velocities (pistol and black powder)* - This does not affect high-velocity, weapons, such as most center-fire rifles; it does' affect .22 Rimfire rifles. *Halve* the remaining damage after DR is subtracted. This attempts to duplicate the behavior of things like .32 ACP, .25 ACP and .22 Rimfire ammunition, which are much more likely to wound than kill anything larger than a rat.

*.34 to less than .40 pistol, and rifle or shotgun less than .40* - This is the default; there is no size modifier for bullet damage.

*.40 to .60* - Wounding damage, after DR is subtracted, is multiplied by 1.5.

*Greater than .60* - Wounding damage, after DR is subtracted, is multiplied by 2.

***Hit Location***

Hit location effects are noted next to the Hit Location diagram on p. 52. Hits to the torso and extremities have no modifier. Hits to the vital organs of the torso do triple damage. Hits to the brain do quadruple damage.

*Continue on next page...*

On a "vital area" hit, a vital area of the vehicle's body (e.g., the power system) is hit Treat this as a body hit, but damage that exceeds the vehicle's DR is multiplied by 1.5.

The detailed damage system for vehicles can be found in *GURPS Vehicles;* it is far too large and specialized to be included here! As a rule of thumb, if an area reaches 0 HP (for a location whose HP are known), or if the attack could *believably* disable the area hit (for a location whose HP are unknown), then assess damage effects using common sense. A disabled helicopter rotor or airplane wing will render the craft unflyable, and it will eventually crash; a disabled robotic arm cannot be used to grab things; a disabled turret cannot rotate or fire its weapons. Damage to the body simply comes off of body ("general") hit points, and the vehicle is disabled at 0 hit points.

# Optional Realistic Combat Rules

The following rules are "realistic," in the sense that using them is not likely to result in outlandish results; they are also purely *optional.*

## All-Out Charge

This is a full run at the foe, with no thought to defense. It can be extremely dangerous to the attacker, even for a skilled fighter, so it should be used with caution.

You may use any ready hand weapon (not a missile or thrown weapon). You must move first and then attack - not vice versa. You may move up to your full Move towards your foe, as long as all movement is forward. If you cross any bad footing along the way, roll versus DX. If you succeed, you have the usual -2 penalty on your attack roll; on a critical success, you take no penalty. If you fail. you are at -4 to attack, and on a critical failure, you trip and fall, taking 1d-2 damage to one foot (choose randomly)! You may not change facing at the end of your move. You have four choices for your attack:

(a) Make a single attack at -1 to skill.
(b) Make a single attack at -5 skill, doing +2 damage if you hit.
(c) Make a single attack at -5 skill, followed by a Slam (p. B112) versus the same foe.*
(d) Make a feint at -5 to skill, followed by a Slam versus the same foe. If your feint was successful, the defense penalty is applied to your opponent's DX roll to avoid the Slam.*

*If you choose options (c) or (d), then you must have enough Move left to enter the foe's hex.

However, if you choose this maneuver, you may make no *active defenses at all* until your next turn. This maneuver is best reserved for chasing down foes who are fleeing the battlefield after a defeat.

## All-Out Defense Option: Increased Defense

There are certain situations where choosing the All-Out Defense maneuver does not help a combatant, but should. For instance, in situations where the only possible defense is to Dodge, you can't Dodge the same attack twice, so an All-Out

Defense is useless. Yet there should be *some* benefit to being mentally and physically prepared to defend yourself against an attack.

To reflect this, the All-Out Defense maneuver can be expanded to include a second option:

*A character choosing the All-Out Defense maneuver may take a* ***single*** *defense at +2 against each attack.*

This is in keeping with the All-Out Attack modifier of +4, since most defenses are made at 1/2 skill. This may be done *instead of* taking the usual All-Out Defense option in the ***Basic Set***, which is still available, of course.

# Animals in Combat

Some special rules are required to cover combat between humans and animals. These rules expand upon those on pp. B140-145; rules for riding beasts in combat can be found on pp. B135-137.

## *Close Combat*

***Attack:*** Because their weapons are inherent and designed to work at close quarters, animals do not suffer the -2 penalty to hit in close combat that humans do.

Unlike humans, animals may *All-Out Attack* in close combat (this is an exception to p. B113). They may choose either to make two attacks against their foes, make a single attack at +4 to their skill, or a single attack at +2 damage. See also *Cornered or Berserk Predators,* below.

When an unarmed human attacks an animal in close combat, martial-arts *strikes* will work, but *throws* will not.

***Defense:*** Against an animal (or anything else) that attacks in close combat (most carnivores, for example), the only active defense is *Dodge. Exception:* if someone has the Boxing, Brawling, Judo or Karate skill, allowing him to parry bare-handed, he can use the *Parry* defense.

A combatant may choose to retreat from an animal that is attacking in close combat, provided it is not grappling him. Add +3 to his defense as he retreats from the hex. If the animal has hold of the fighter with its claws or teeth, he cannot escape from the hex by retreating.

## *Damage*

The *Damage* listing for an animal represents the total damage done by that animal in a single turn. The only exception to this is an All-Out Attack with the two-attack option, in which case two attack rolls are made. Biting and clawing are summed up in one figure; do not figure them as separate damages each turn.

Note that the type of damage done by most carnivores is considered to be *cutting* rather than *impaling.* However, certain animals do impaling damage, notably those animals with teeth or horns large enough to puncture the torso deeply.

*Cornered or Berserk Predators:* Cornered, wounded or berserk predators are extremely vicious and dangerous, and can claw enemies with more force than normal. This is an All-Out Attack; the animal cannot dodge on that turn. This attack does thrust/cutting damage based on the animal's ST. A lion with ST 30 will do 3d cutting damage instead of the customary 2d-2 (see sidebar, p. B 143).

This is dangerous for the animal as well. If the target is wearing metal armor, the animal needs to roll against its HT minus the DR of the armor. A failed HT roll results in the animal tearing a claw off or bruising its paw, which inflicts 1d-3 damage for every 2d of damage it does; the animal's DR protects it, and the target takes normal damage. A berserk beast can tear a fully armored man to shreds in a few seconds, even if the animal injures itself in the process.

## Bullet Damage (Continued)

### *Applying Bullet Damage Modifiers in Play*

Bullet damage modifiers are cumulative. The sequence of application is:

(1) Roll for bullet damage.
(2) Apply bullet type modifier to DR; round *up* to the next whole number.
(3) Subtract modified DR from points of damage.
(4) Apply Bullet-Type modifier to remaining damage; round *down*.
(5) Apply Bullet-Size modifier to remaining damage: round down.
(6) Apply hit location modifier; round up.
(7) Subtract modified points of damage from hit points.

### *Flexible Armor and Blunt Trauma*

Flexible armor, such as Kevlar or mail, flexes with the blow and allows some dam-age to get through. Firearms literature calls this "blunt trauma." In *GURPS,* it is crush-ing damage. Any 6 which is rolled on a bul-let attack which does *not* penetrate flexible armor does 1 point of crushing damage to the one wearing the armor.

### *Blow-Through*

Bullets have a lot more energy than can usually be translated directly into killing or "stopping power." Some energy may be literally "lost down range" if the bullet goes on through. More is "lost" because it doesn't take the target put of action. Waste heat, stretching of tissue below its elastic limit, transitory wave effect and other non-lethal actions use up a lot of the bullet's energy without necessarily "stopping" the victim from breathing, or even moving and fighting. In game terms, damage is limited by, the "blow-through" rule (see p. B109).

Any one bullet can do a maximum of HT/3 to hands and feet, HT/2 to arms and legs, HT to torso or HTx3 to head or vitals There is no limit to the amount of damage a single bullet can do on a hit to the brain (except that the most it can do is kill instantly; it can't actually disintegrate the target).

## Passive Defence Limitation

Passive defence (PD) is added to the defense roll. This works well, as written, for hand weapons - but bullets have great momentum and a small cross-section of strike compared to hand weapons, especial-ly as velocity increases. For each 3 dice of damage that a bullet does, it eliminates 1 point of PD from target's armor. It can *never* give a negative PD; the target always has a chance to try dodging.

## Bullet Knockback

Bullets don't push people around very well. Pushing is mostly a matter of momentum; while bullets have a lot of kinetic energy, they have comparatively little momentum. A man shot in the chest with an elephant gun is as likely to tall toward the shot as away from it; even a rifle shot slopped by armor is unlikely to knock tile subject over. Bullets that wound do very little knockback; they rip and tear flesh rather than pushing it.

For *GURPS,* bullets that wound do no knockback. A bullet that does not penetrate DR moves the foe 1 hex directly away along the line of the shot if the unmodified damage rolled is more than 3xST of the target.

## Multiple Projectiles

At a range of 1 yard or less, any number of small bullets do the same damage as one bore-size bullet, as long as the weight of the shot is the same. Because the shot has not had time to disperse, all of the load hits, or misses, just as a single bullet would; roll only once to hit.

At greater than 1-yard range, the projectiles begin to disperse. They are distributed randomly around a point called the *center of impact.* The shooter aims the *center of impact.*

Most multiple-projectile loads come in one of four categories:

*Multi-bullet:* Two or more bullets of bore size.

*Buck-and-ball:* A single bore-size bullet and two or more smaller bullets.

*Shot:* A large number (half a dozen to several hundred) of less than bore-size bullets.

*Flechettes:* From two to hundreds or small metal darts.

Any gun that will fire one projectile can fire more than one, if suitable ammunition is made for it.

### *Multi-Bullet Loads*

Multiple bullets increase the chance of a hit with *something* by throwing more bullets at the target. Each small bullet does less damage than one large one

For game purposes, up to four bullets can be loaded for any weapon. A separate roll to hit is made for each bullet. The first roll is at an additional -1, the second at -2, and so on. Roll separately for damage for each hit. Damage for each hit is the basic damage for the gun divided by the number of bullets in the load, damage is rounded down.

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### *Hit Location*

*See Hit Location for Animals,* p. 54.

### *Knockback and Slam*

The knockback and slam rules included in the *GURPS Basic Set* are intended primarily for human fighters. Modifications must be made when dealing with very large creatures.

***Knockback**:* Creatures with ST 4-16 use the same rules as humans (p. B106) - 8 points of cutting or crushing damage produces 1 hex of knockback. For stronger animals, the amount of damage necessary for each hex of knockback is equal to ST/2 (rounding up). Thus, a bear with ST 33 is knocked back 1 hex if it takes 17 hits of damage in a single blow. A ST 10 human taking the same amount of damage would be knocked back 2 hexes.

***Slam**:* Slams (p. B112-113) are still handled as Quick Contests of DX, followed by Quick Contests of ST to determine knockdown and knockback. Roll the Contest of DX normally. The Contest of ST may be modified, depending on the ST of the foes. First, assess the normal ST modifiers (+2 for charging, -2 if the foe has a medium or large shield, etc.). Then, if these *adjusted* ST scores fall outside the 6-20 range, use the *Contests of ST for Very Weak or Very Strong Creatures* rules on p. CI13. The adjusted ST of the weaker character is set to 10 and the adjusted ST of the stronger character is multiplied by (10/adjusted ST of weaker character), rounding down. The Contest is rolled using these modified scores.

If the stronger foe's ST (before any adjustments) is greater than or equal to three times that of the weaker foe, the stronger foe *automatically* wins the Contest, and overruns his opponent (see p. B100). The stronger foe still makes a roll, but falls only on a natural 18.

***Knockback from Slam Attacks***. If one fighter is knocked down, he may also be knocked back; roll a *second* Quick Contest of ST. as per p. B106, using the final, modified ST scores of the two foes. If the fallen fighter wins or ties, he is not knocked back. If he loses, he is knocked back I hex for every 2 points by which he lost, to a maximum distance equal to the distance his foe traveled to make the slam;
no character may knock his foe back more hexes than he moved on his turn.

***Flying Tackles**:* A number of carnivores - cats, especially - attack by leaping onto their prey, knocking it down. Most animals can easily leap 2-3 yards, while the leopard can leap 6 or more. Treat this attack as a "flying tackle" (p. B113), with the animal getting a DX roll to land on its feet. The victim rolls as for a slam, but at an extra -2 to ST.

***Head Butts**:* Animals with horns will attack using a special form of slam: the *head butt.* Knockdown and knockback are determined as for a normal slam. In addition, the victim of the head butt will take damage from the horns; the amount will depend on the *weight* of the head-butting creature. The basic damage will be equivalent to the animal's *trampling* damage, modified up or down by 1-3 points, depending on how long and sharp the horns are and whether the animal tosses its head as it butts. If the hom is especially sharp, it will do *impaling* rather than *crushing* damage.

This damage is doubled if the creature is moving 10 hexes/turn or more; halved if it is moving 3 hexes/turn or less.

Any head-butting animal must make a roll against HT (at +5, if it is traveling 3 hexes/turn or less) when it butts with its head. If this roll is failed, the animal is Stunned. The head-butter will take no actual damage from the slam, unless it is butting heads with another animal or with a massive object (tree or car). In that case, it will take damage only if it loses the Quick Contest of ST by 10 or more points. Damage taken is equal to half the damage normally done by the animal it is butting heads with, or to half the damage it normally does itself if it butted a fixed object like a car.

### *Parrying Animal Attacks*

Animals such as bears which attack with a 1-hex (or more) reach can be blocked or parried. If a character successfully parries an animal, there is a chance that his weapon will break. Treat the weight of an animal's forelimb as equal to 1/5 its ST, rounded down (e.g., a bear with ST 32 has a forepaw weight of 6 lbs.). If the paw weighs three or more times the weight of the parrying weapon, the weapon has a 1/3 chance of breaking. Thus, this bear has a 1/3 chance of breaking any weapon that weighs 2 lbs. or less.

If the character rolls a critical success while parrying, there is a chance that he has injured the animal; roll Id-3 and apply that much damage to the forelimb.

## Critical Hit/Miss Tables

The following tables apply to situations not covered by the tables on p. B202.

### *Animal Critical Miss Table*

For animal critical misses, the GM may either use the *Critical Miss Table* on p. B202 - treating any "weapon breaks" "weapon drop" or "weapon turns in hand" result as 1d-3 damage to the creature - or use the table below.

### animal critical miss table

**3** - If the defender has an impaling weapon, the animal is impaled on the weapon, which does its maximum damage, and the weapon is stuck - a Quick Contest of ST is required to pull the weapon free. Otherwise, treat as #4 below.

**4** - The animal falls badly and is stunned for at least 1 turn. On the turn after its next, the animal may begin rolling vs. HT to recover.

**5** - The animal falls clumsily, hurting itself it takes 1d-3 crushing damage, defends at -3 until its next turn and cannot attack again until it regains its feet.

**6** - The animal breaks a claw, hoof or tooth, if appropriate; basic damage is reduced by 1 for all subsequent attacks. If otherwise, the animal takes 1d-3 crashing damage to the limb with which it was striking.

**7,8** - The animal loses balance completely and falls down. It defends at -3 until its next turn, and cannot attack again until it regains its feet.

**9-11** - The animal is slightly off balance; defends at -2 until its next turn.

**12,13** - As #7, above.

**14** - The animal pulls a muscle: -3 to attack and defense rolls, requires three days to recover.

**15** - As #6 above, but basic damage is reduced by 2.

**16** - As #5, above, but takes 1d-2 crushing damage.

**17** - As #4, above, but also takes 1d-3 crushing damage.

**18** - The animal fails so miserably in its attack that it loses its nerve. Any animal with an IQ of 3 or more will turn and flee on its next turn, if escape is possible. If backed into a corner, it will assume a surrender position (throat bared, belly exposed, etc.). For animals of IQ 2 or less, treat as #17.

*For animals that cannot fall dawn (snakes, etc.):* Treat all results of falling down as taking Id-3 damage, instead.

*For fliers:* Treat results 7, 8, 12 and 13 not as falling down, but as being put into an adverse flying position with the same effective results.

For *swimmers:* Treat all results of falling down as being put into an awkward position, with the same effective results. Any results of damage due to falling should be read as stun instead.

### *Unarmed Critical Miss Tables*

Unarmed combat has its own unique hazards. When an unarmed fighter critically fails at an attack, parry or other maneuver, use these tables instead of the usual Critical Miss Table on p. B202.

## Multiple Projectiles (Continued)

### *Buck-and-Ball*

Buck-and-ball is a cheap way to increase both the power and the hit probability of a smoothbore weapon. Buck-and-ball damage is that of one full-size bullet for the bore size and two buckshot hits. each doing 1d damage. At 5 yards or less roll once to hit: a hit is with all the balls and a miss is a complete miss. At more than 5 yards, roll twice to hit: once at modified skill, for the full-caliber ball, and once at an additional -2, for the buckshot. Maximum range for the buckshot is 150; 1/2D is 25. Maximum range for the full-bore bullet is 100 yards less than normal, and 1/2D is 10 yards less than normal.

### *Shot*

Shot comes in many sizes. For *GURPS*, all shot can be assigned to one of three categories:

*Buckshot* has 1/4-inch to slightly over 1/3-inch pellets. It is used for combat and big game.

*Birdshot* has 1/10-inch to less than 1/4-inch pellets. It is used for birds and small game.

*Smallshot* has less than 1/10-inch pellets. It is used for target shooting, pest control and non-lethal riot loads.

A load of shot begins to spread as soon as it leaves the muzzle. No two pellets have quite the same initial energy, mass or ballistic coefficient. This increases the likelihood that something will hit the target, but decreases the amount of energy that will be delivered. The amount of damage depends on how much of the shot hits the target and the retained energy of each pellet at that time. Retained energy decreases faster with shot than with single bullets. Smaller projectiles lose energy to atmospheric resistance faster than larger ones. Shot loads give +1 to the base skill of the firer, but the maximum Acc bonus is 5 (with a smoothbore) and may be less, depending on the weapon. 1/2D for buck-shot is 25 yards; Max. is 150 yards. Birdshot and smallshot have both 1/2D and 1/4D: 1/2D for birdshot is 5 yards; 1/4D is 10 yards; Max is 50 yards. 1/2D for small-shot is 3 yards; 1/4D is 6 yards; Max is 20 yards. Most materials get a +1 to DR at 1/4D range, and greater; (The GM is the authority on what materials - soap bubbles, glass Christmas tree ornaments, single sheets of typing paper - do not get this bonus. Human flesh does, except for the eyes.)

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## Multiple Projectiles (Continued)

***Damage from Shot Loads:*** Any smoothbore gun can fire shot loads. Use the gun's basic damage as for a single bullet, but roll each die separately for penetration against DR. Bonuses and penalties are applied to any damage that gets through the armor.

***Example:*** *A* smoothbore with damage 2d-1 hits a man in leather armor (DR2) with a load of shot. Each damage die is rolled separately, giving two 1-die attacks. The first roll is a 3. One point of this damage gets through to tissue. The second roll is a 4; 2 points penetrate the armor. Now the -1 to damage (because the gun did 2d-1 basic damage) is applied. Total damage is only 2 points.

## Ranged Combat- Special Situations

The following rules cover the use of missile weapons in situations where the normal rules for Snap Shot, Accuracy, 1/2D Range and Max break down, or must be modified.

### *Indirect Fire*

"Indirect fire" means that the gunner is firing projectiles in a ballistic arc. The target may be behind an obstacle - for instance, on me other side of a building or hill - provided the weapon has the range to shoot over it. The second advantage of indirect fire is that it increases range to 2.5 times the weapon's maximum range. Indirect fire can be performed by any projectile weapon, but not beams.

Indirect fire is aimed at a specific *area* (which may be a patch of ground or water). A person, vehicle or structure that is in that area at the time the fire arrives will be affected by it. If the gunner can't see the target, an observer must relay firing coordinates to the gunner. This takes 2d+5 seconds and requires a communicator, (if nearby; shouting will do). Blind fire is possible, but at -15!

Once the gunner has firing coordinates or can observe the target for himself, he can fire. Only range modifiers apply; since the attack is aimed at an area, the size and speed modifiers are not important, nor is cover, concealment, smoke, or darkness a factor (except in preventing the gunner or observer from spotting the target hex). Indirect fire is always treated as beyond l/2D range, regardless of the actual-range. Tnus, there is *no* Accuracy-bonus. If relying on ah observer to see the target, there is a -5 to hit, reduced by the amount by which the observer makes a Forward Observer skill roll, or increased by the amount by which it fails.

***Minimum Range:*** Indirect fire may not be performed at closer than one-tenth the indirect fire range (25% of normal maximum range); at closer ranges, use-direct fire instead.

*Continued on next page...*


**3** - You trip and knock yourself out! If kicking, you slip and fall on your head; otherwise, you fall face-first into your foe's fist, knee or forehead. Roll vs. HT every 30 minutes to recover.

**4** - You connect using the wrong part of your body! You immediately take enough damage to cripple the body part that you were striking with (HT/3 for a hand or foot, HT/2 for arm or leg). DR has no effect on this damage. On a Head Butt, see, #3 above.

**5** - You hit a solid object (wall or floor) instead of your opponent. Take normal punch or kick damage to the body part you were striking with; DR protects normally.

**6** - As #5 above, but for half damage only.

**7** - You stumble forward. Advance 1 hex past your opponent and end the turn facing away from him. Your foe is now behind you!

**8** - Yon fall down. It will take you 2 turns to get up (1 if a successful Acrobatics roll is made immediately).

**9-11** - You lose your balance. You can do nothing else until your next turn. All your active defenses are at -2 until your next turn.

**12** - You trip. Make a DX roll to avoid falling down. This roll is at -4 if kicking, or at *twice* the usual DX penalty for any maneuver that requires a DX roll to avoid mishap even on a normal failure (e.g., Flying Jump Kick).

**13** - You let your guard down. All your active defenses are at -2 for the next turn, and any successful Feint made against you during this turn counts *double!* This *will* be obvious to your foe.

**14** - You stumble forward. See #7 above.

**15** - You pull a muscle. Take 1d-3 damage to your arm (if punching or attacking with the aim), leg (if kicking) or neck (on a Head Butt). You are off balance and at -1 to all attacks and defenses for the next turn. You are at -3 to any action involving that arm or leg (or to any action, if you injure your neck) until this damage heals. This penalty is reduced to -1 if you have the High Pain Threshold advantage.

**16** - You strained your shoulder! If parrying or punching, that arm is "crippled" for the rest of the encounter. You cannot use that arm to attack or defend for 30 minutes. All subsequent punches and parries with the other arm will be at -1. If kicking, you fall down hard instead, taking 1d-1 damage. DR protects normally.

**17** - You connect using the wrong part of your body. See #4 above.

**18** - You trip and knock yourself out. See #3 above.

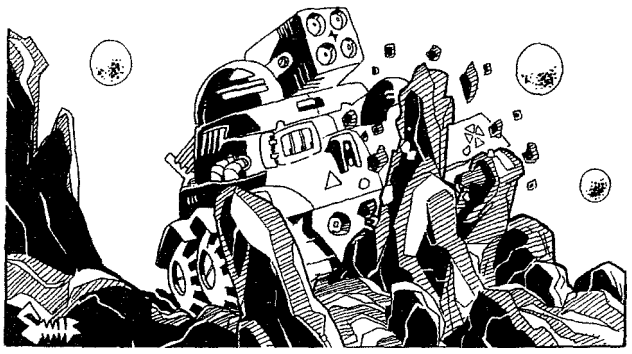
## unarmed critical miss table- grappling, locks and throws

**3** - You knock yourself out! You smash your forehead against your opponent's, or catch a knee in the solar plexus. Roll vs. HT every 30 minutes to recover.
**4** - You throw your back out (1d-3 damage) and -6 DX and -4 IQ from the pain until someone resets your back with a First Aid-2 roll. These penalties are halved if you have the High Pain Threshold advantage.
**5** - You fall down *hard*, taking 1d-1 damage, DR protects normally.
**6** - As #5 above, but for 1d-3 damage only.
**7** - You stumble forward. Advance 1 hex past your opponent and end the turn facing away from him. Your foe is now behind you! Alternatively, if you were attempting an Arm or Finger Lock or a Judo Throw and if your opponent's fighting style includes that maneuver, he has the option of immediately inflicting that maneuver upon you if he can make an unmodified Judo or Wrestling roll!
**8** - You fall down. It will take you 2 turns to get up (1 if a successful Acrobatics roll is made immediately).
**9,10,11** - You lose your balance. You can do nothing else until your next turn. All your active defenses are at -2 until your next tum.
**12** - You nip. Make a DX roll to avoid falling down.
**13** - You let your guard down. All your active defenses are at -2 for the next turn. You are also at -2 to DX in any Quick Contest made in Close Combat, and any successful Feint against you counts *double*! This *will* be obvious to your foe.
**14** - You stumble forward. See #7 above.
**15** - You pull a muscle. Take 1d-3 damage to your back (Torso). You are off balance and at -1 to all attack and defense maneuvers for the next turn. You are at -3 to any action until this damage heals. This penalty is reduced to -1 if you have the High Pain Threshold advantage.
**16** - You fall down *hard.* See #5 above.
**17** - You throw your back out. See #4 above.
**18** - You knock yourself out. See #3 above.

### *Vehicle Critical Hit Table*

The following table is *greatly* simplified from the roles in *GURPS Vehicles.* It is intended to allow a GM without that book to quickly assess the qualitative effects of a critical hit on a "generic" vehicle. Only the vehicle's DR, HP, general performance characteristics and significant items of equipment need be known to use this table. If *Vehicles* is being used, use the rules given there instead.

All damage is applied to the vehicle's hit points (called "body hit points" in *Vehicles).* A vehicle with 0 hit points will no longer function.



## Ranged Combat - Special Situations (Continued)

***Effects of a Hit:*** If a hit is achieved, it means the round came in over the target hex. If there is a building- vehicle or person in the hex, the round will hit it. striking from above. Explosive damage from indirect fire is normal, but kinetic-type damage (e.g., crushing damage of bullets, impaling damage of needles) is halved, as if the attack had been made at or beyond (he 1/2D range.

***Correcting Fire:*** Once the first shot is fired, fire can be corrected, provided the fall of shot and any movement of the target is observed. Unless the target can be seen, this requires a spotter and lakes 2d+5 seconds To correct fire, roll again, but at a +4 bonus for the second shot and a +8 for the third and any further shots at the same target.

### *Missile Fire in Space*

Use these rules when a ranged weapon is fired in space:

***Beam Weapons:*** The ranges given for most beam weapons assume atmospheric interference with the beam. In vacuum, the 1/2D and Max ranges are affected as follows:

X-ray or gamma-ray laser: x100
Rainbow or ultraviolet laser: x50
Laser, disruptor, flamer, fusion gun, neutral particle beam or antiparticle beam (pulsar): x10
Charged particle beam (blaster): x0.01
Screamer or stunner: x0 (does not function)
All other beam types: x1

***Flamethrowers*** are useless in space.

***Projectiles*** *(including guns, rockets and muscle-powered missiles):* Max and 1/2D range are ignored - the projectiles will keep on going, and neither Acc nor dam-age are reduced past 1/2D range.

### *Missile Fire Underwater*

When firing ranged weapons underwater rather than in atmosphere, use the fol-lowing rules:

***Beam Weapons****:* The range of disintegrators is not affected. Likewise, the range of stunners and screamers fired underwater is unimpaired. Lasers have 1/10 range; other beam weapons have 1/100 range.

***Flamethrowers*** are useless underwater

***Guns*** (including ultra-tech Gauss gun and gyrocs) fired underwater have 1/20 range - if fired from water into air or vice versa, count each hex underwater as 20 hexes of range.

***Muscle-Powered Weapons*** will not function underwater. An arrow, spear or cetera, fired from air *into* water count each hex underwater as 20 hexes of range.

## Blow-Through, Weapon Type and HT

Not every kind of attack is handled identically for "blow through" purposes (see p. B109). The hit location rules on p. 53 address the issue of blow-through and specific body parts; the following rules summarize the relationship between attack form and blow-through for a general torso wound. Crushing hand weapons, cutting attacks and attacks from weapons that inflict more than 15d damage never blow through. All other attack forms have a "blow-through multiple" (BTM), which is the multiple of the target's hit points that can be inflicted as damage before the attack blows through and comes out the other side. If more than one BTM would apply (e.g., a laser is both a beam and impaling), use the *higher* BTM.

*Armor-Piercing Bullets* (see p. 56) have a BTM of 0.5.

*Impaling* attacks and *Solid Bullets* (see p. 56), nave a BTM of 1.

*Shot* has a BTM of 1, but each die is treated as a separate attack for blow-through purposes, in much the same way that DR is applied separately against each die (see p. 60).

*Expanding Bullets* (see p. 55) that expand have a BTM of 1.5; otherwise, their BTM is 1.

*Beam Weapons, Electricity* and *Fire Attacks* (including flamethrowers and Fireball spells), have a BTM of 2. Hit points - and not the HT attribute -should be used to calculate blow-through. This is because hit points are a measure of bulk, and in general, more energy will be deposited in a larger individual. Note also that the issue of DR penetration, as well as any damage multipliers for weapon type, are always considered before blow-through; blow-through only limits the final damage that will affect the character.

*Example 1:* character with 10 hit points and DR2 is hit by a laser for 14 hits of basic damage. After subtracting DR 2, 12 points are left, doubled to 24 since the laser is impaling. However, since a laser is a beam weapon (BTM 2), it blows-through after inflicting only 2x10=20 points of damage.

*Example 2:* The same character is hit by a shotgun blast. The weapon does 4d damage, and the dice come up 4, 5, 5 and 6! After DR, this is 2, 3, 3 and 4. However, this is not treated as a single 12-point attack. Instead, each die is compared to his 10 hit points. Since shot has a BTM of 1 and none of the attacks inflicts over 10 points of damage, the blast does its full 12 hits.

## vehicle critical hit table

**3** -Triple damage; also, if there is a computer in the vehicle and any damage penetrated DR, it is destroyed!

**4** - Double normal damage. Also, if the hit struck the body of a boat, plane or helicopter, and did damage in excess of 5% of the vehicle's hit points (minimum 1 hit) after DR, the rudder system is damaged and the vehicle may no longer maneuver.

**5** - Bypasses 90% of armor DR (i.e., divide armor's DR by 10) and does normal damage. Also, whether any damage penetrated the vehicle or not, a sensor (if any) is disabled.

**6** - Normal damage; also, the vehicle's largest engine, if any, is badly damaged, halving the vehicle's top speed and acceleration (if this result occurs a second time, the engine stops working). If the vehicle has only batteries or power cells, treat as #14, below.

**7** - Normal damage; also, if the attack penetrated DR, or if the vehicle is made of wood, fire breaks out! This does 2d damage every 10 seconds, ignoring DR.

**8** - Normal damage; also, if the vehicle has weapons, one is struck in the barrel and disabled.

**9-11** - Window hit: if the vehicle has windows or a transparent canopy, one shot goes in through them, ignoring all but window DR (DR 1 for normal windows).

**12** - Normal damage. Also, any one item of miscellaneous equipment is disabled, GM's option.

**13** - Bypasses 90% of DR (i.e., divide armor's DR by 10) and does normal damage.

**14** - If the vehicle has a battery or power cell, half of its storage capacity (along with half the stored power) is lost. If me vehicle has no batteries or power cells, treat as #6,above.

**15** - Normal damage; also, if any damage penetrated armor and there is a communication or ECM system in the vehicle, one such system is disabled.

**16** - Double normal damage. Also, if the vehicle has a fuel tank, it develops a leak: 1d% of the total fuel capacity leaks out immediately, plus (unless the tank is self-sealing) 1d% every minute. As well, gasoline will catch fire on a roll of 11 or less on 3d (9 for diesel, 13 for exotic jet and rocket fuels), and will explode - disabling the vehicle - on a roll equal to *half* that (e.g., 5 or less for gasoline).

**17** - Triple normal damage.

**18** - Double normal damage; if the vehicle is carrying explosive ammunition and any damage penetrated, the ammo explodes, doing damage equal to 1d shots of that ammo.

# Concentrated Defense: Protecting Your Vital Interests

*These rules are adapted from an article (by Charles Wheatley) that originally appeared in* ***Roleplayer 27****.*

In real combat, a fighter can protect one part of his body at the expense of others. For example, when fencing with a foil, a leg and arm are forward to protect the torso, which is the only valid target. When the whole body is fair game, as with the epee, the fencer must move the leg back to prevent it from being hit, making the torso an easier target. The following optional rule simulates the concentration of defense.

### *Optional Rule: Concentrated Defense*

Before an attack is initiated, the defender may decide to more heavily defend a certain portion of his body. The defender should write down the area of the body where he wishes to concentrate his defense. He gains a +1 bonus to the defense of this one area for every -1 penalty he takes for *all other* areas, up to a maximum bonus of +5 or a minimum effective defense of 4 after the penalty. For simplicity, the parts of the body can be divided into four areas:

1) Head (includes the brain, eyes, jaw, nose and throat)
2) Torso (includes the vitals and groin)
3) Anns (includes both hands and arms)
4) Legs (includes both feet and legs)

A defense of the *vitals only* may be attempted for a +2 bonus for each -1 penalty to all other body parts, up to a maximum +6 - e.g., if the defender takes a full +6 bonus to guard the vitals, his defense of the rest of his body will be at -3.

A skilled opponent will notice a concentrated defense. For an attacker to realize that his opponent is favoring a certain body location, he rolls vs. 2/3 his highest weapon skill, *plus* the bonus the defender is attempting to gain. Roll once before each attack. Success means the attacker can predict where the concentrated defense will be, and a critical failure means that he misinterprets the defense.

*Example:* Jean-Luc wants to keep his sword arm safe, so he concentrates his defense to give himself a +2 bonus to defend against attacks to his right arm or hand. He now has a -2 to defend against attacks to any other body part. His attacker, Frederick, rolls to see if he notices that Jean-Luc is favoring a certain body part. His Fencing skill is 15, so he rolls against a 10 plus (he +2 bonus Jean-Luc is attempting, or a 12. He rolls a 14, indicating failure, and attacks Jean-Luc's sword arm. The defender rolls vs. a 12 to parry (his normal parry is 10, plus the concentrated defense bonus) and rolls an 11. He parries.

# Dodge and Drop

When under fire, hit the dirt! This sensible maneuver is taught in basic training courses in armed forces the world over. In *GURPS*, this can be handled using the following optional rule:

*A character may drop to the ground white dodging, earning a +3 bonus to his Dodge roll.*

This is similar to a retreat - except that a Dodge and Drop *may* be used against a ranged attack. (You may not retreat from a ranged attack.) Like a retreat, it applies to *all of* your defenses against *one foe* that turn (including all Dodge rolls against gunfire). It has the disadvantage of having the character end up on the ground, however - it takes him 2 turns to get back to his feet.

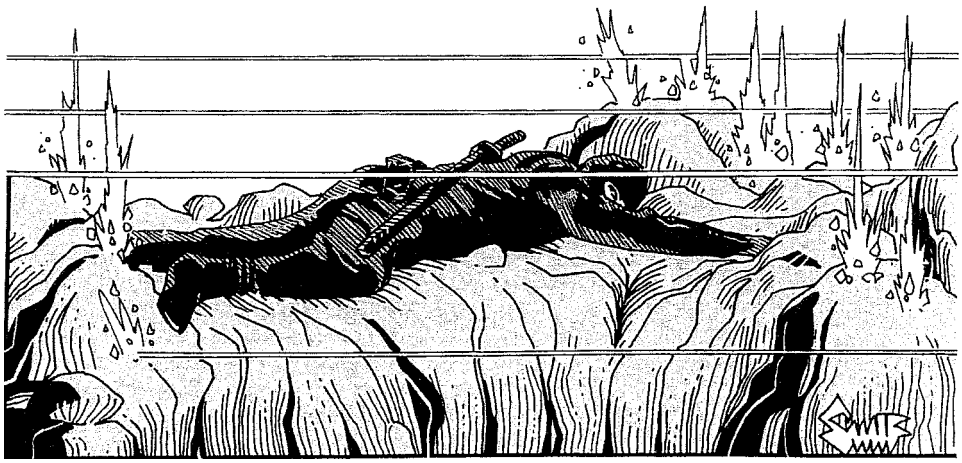
Any cover mat the character drops behind does not count against the initial shot that inspired the Dodge and Drop, but *is* effective against subsequent shots at that character.

## Knockback, Weapon type and Weight

As per the sidebar on p. B106, every 8 hits of basic *cutting* or *crushing* damage causes 1 yard of *knockback.* For *bullets*, the damage needed is much larger: it rakes 3xST points of basic damage to cause 1 yard of knockback (see p. 58). However, both figures assume a ST 10, adult, male human weighing 150 lbs. For more realism, the following rule can be used:

*Cutting and crushing* attacks cause knockback in yards equal to 20 x (basic damage/target's weight in pounds), rounded down.

*Bullets* cause knockback in yards equal to 5 x (basic damage/target's weight in pounds), rounded down. *Note:* The multiplier in front of (basic damage/target's weight in pounds) is called the: *knockback multiplier* (KM), and is a measure of how efficient the attack is at causing knockback - the higher the KM, the greater the knockback. An impaling attack, for instance, has a KM of 0. The GM is free to invent new and exotic attack forms that have other KM values, or even assign a higher KM to weapons that do a lot of knockback in Cinematic settings (shotguns come readily to mind...)!



## Flinch, Buck Fever and Bullet Shyness

The rules for firearms in ***GURPS*** assume that the shooter has the appropriate weapon skill (not just a default) and is calm, relaxed, in good physical shape and under no particular stress. Combat seldom offers any of these conditions. Even the stress of an important match, a trophy buck or a critical audience can seriously degrade the ability to hit a target. The variety of possible conditions, especially since they change for the same person under varying kinds of stress, is too great for a hard and fast rule. It is up to the GM to determine what the penalty is for each shooter under any given conditions. The GM applies this penalty *after* the player rolls for his character's shot - if a gunman knew exactly what be was doing to foul up his shots, he would stop doing it!

### *Flinch*

Flinching is responding to the kick of the gun before it is fired. In ***GURPS,*** it is a recoil penalty applied to the *first* shot, or *added to* the normal recoil penalty of the first group of shots in automatic fire. It is most common for inexperienced shooters, but even veterans can pick up a flinch. GMs decide if the shooter is flinching, and to what degree.

*Example 1:* A hoplophobe (see p. B36), totally unfamiliar with weapons, is attacked by a berserk biker. He flinches to the extent that he closes his eyes, jerks the trigger and moves the muzzle 2 feet. The GM decides that this means no aim or Acc bonus, twice Rcl penalty on the first shot (cumulative with each successive shot) *and* a -4 Snap Shot penalty - all this applied to default skill... if he first makes a Will roll at -2 to allow him to touch the nasty thing at all.

*Example* 2: An experienced hunter, used to shooting a .223 (Rcl -1), has to fire a .600 Nitro Express (Rcl -6). He knows that the recoil is much greater. The GM decides that a reasonable flinch penalty for a shooter going from varmint rifle to elephant gun is full Rcl on the first shot, and double Rcl for a second shot in the same second. He requires a Will roll (see p. B93) to control the control. On a success, he subtracts the number by which the Will roll was made from the RcI penalty and applies this to the first shot as flinch penalty. On a critical success, there is no Rcl penalty on the first shot and, normal penally for a second shot (see *Recoil,* p. 67). The Will roll can't give him a bonus, though; it can only reduce the flinch penalty to 0.

The flinch penalty is only used to determine if a shot is a hit; it has no effect on Malf, nor will it change an ordinary failure to a critical failure.

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# Explosives in Combat

Explosives are frequently used in high-tech combat. The following rules govern damage from explosives. Where they differ from those in ***High-Tech*** and the ***Basic*** *Set,* these rules take precedence.

## *Relative Explosive Force*

The concussive power of explosives is measured in relation to the explosive force of TNT (trinitrotoluene). TNT has an arbitrary explosive force of 1, and does 6dx2 damage per pound. Most common chemical explosives have *Relative Explosive Force* (REF) values between 0.3 and 2. For instance, black powder (REF 0.5) does half the damage that TNT does, so a pound of black powder does 6d damage. Explosion damage should be based on a multiple of 6d where possible;
this gives an appropriate spread of probable damage.

The following figures are a ballpark guide to REF:

### REF table

| *Explosive* | *REF* | *Explosive* | *REF* |
|---|---|---|---|
| Serpentine Powder (pre-1600) | 0.3 | Amatol | 1.2 |
| Ammonium Nitrate | 0.4 | Gasoline | 1.2 |
| Corned Powder (pre-1850) | 0.4 | Tetryl | 1.3 |
| Black Powder (post-1850) | 0.5 | Composition B | 1.4 |
| Diesel fuel/nitrate fertilizer | 0.5 | C3 | 1.4 |
| Dynamite (80%) | 0.8 | C4 | 1.4 |
| PETN (det cord) | 1.0 | Liquid hydrogen/liquid | 1.5 |
| TNT | 1.0 | Nitroglycerine | 1.5 |

## *Concussion Damage*

Concussion damage is the damage done by the shock wave and expanding gases of the explosion. It is *crushing* damage. It is applied to the entire body, not to a specific part. The blow-through rule (see p. B109) does not apply.

***Radius of Concussion Damage****:* Concussion damage works using the rules on p. B121: An explosion affects everything in a 2-yard radius at full damage, and damage is quartered every *additional* 2 yards from the centre of the explosion. As stated in *High-Tech,* this applies only to small explosions. Damage is quartered every *4* yards from the explosion if damage is 6dx20 or more, every *8* yards if 6dx200 or more, every *16* yards if 6dx2,000 or more, and so on - each tenfold increase in force doubling the increment.

***Explosions in Other Environments****:* The above rules are for Earth-normal air pressure. In thicker or thinner atmospheres, the blast effect will be enhanced or reduced proportionally. Underwater, concussion range increments are *tripled* (e.g., an explosion smaller than 6dx20 does full damage in a 6-yard radius, etc.). In a vacuum, with no medium to carry the shock wave, concussion damage is limited to that actually caused by the expanding gases: for explosions smaller than 6dx20, concussion damage is divided by *8* for each 2 yards from the explosion.

***Defense Against Concussion Damage****:* PD has no effect on concussion damage and there is no active defense against it. A character who knows an explosion is about to occur may dive for cover - see *Dodging Explosions,* in the sidebar (p. 54).

***DR and Concussion Damage****:* Body armor does not protect *at all* against concussion damage unless it covers the entire body with no openings. Toughness and natural DR protect normally. The DR of non-living targets (like structures, vehicles or robots) and the DR of any character in sealed or pressurized body armor is *squared* against concussion damage.

***Stun From Explosions:*** A sufficiently powerful explosive can kill or stun living beings inside sealed body armor, vehicles and structures even if DR is not penetrated. Divide the explosion's concussion damage (before DR) by the structure's or vehicle's hit points and round down. The result is the points of crushing damage suffered by the occupants. Also, if any damage was inflicted, a HT roll is required to avoid being physically stunned, at -1 per point of damage taken.

***Contact Damage:*** If an explosive goes off in *direct* contact with flesh (that is, the target doesn't have any armor), concussion damage is doubled. A person covering an explosion can take all the damage up to 20xHT, thus heroically saving the rest of the party. An explosion *inside* a living body does five times damage!

## *Fragmentation Damage*

Fragmentation damage is described on pp. B121-122. Fragments do *cutting* damage in an expanding sphere around the center of the explosion. "Blow-through" does not apply. The dice of fragmentation damage depend on what is available to form the fragments. Explosions on ordinary soil produce 1d-4 fragmentation damage; on rocks or timber 1d-2; in a scrap yard 1d.

For weapons, fragmentation damage is generally listed in square brackets following concussion damage, and is always cutting; e.g., 6d [2d] is 6d of concussion and 2d fragmentation. As a rule of thumb, damage is 2d for hand grenades and 20-34 mm rounds, 4d for 35-59 mm rounds, 6d for 60-94 mm rounds, 10d for 95-160 mm rounds and from 12d to as much as the GM thinks suitable for larger rounds (the explosion from a 16-inch shell can pick up a telephone pole and toss it like a javelin)!

***Radius of Fragmentation Damage:*** Explosions project fragments to a distance of 5 yards times the dice of explosive damage, to a maximum of 250 yards. Fragmentation damage is random; anything within this radius may be hit. The farther from the explosion, the lower the chance of being hit, because the fragments must fill a greater volume.

***Fragmentation Damage vs. Large Targets:*** Large objects may be hit with multiple fragments. An object will be attacked once for each +1 Size Modifier (see p. B201) over 0. Thus, for an object with a Size Modifier of +4 (a linear measurement of 10 yards), *four* fragment attacks are made against it - roll individually for each attack.

***Chance of a Fragment Hit:*** A hit is automatic in the hex of the explosion. In every hex adjacent to the explosion, a hit occurs on a roll of 17 or less. One hex farther away, the roll is 16 or less, and so on. When this roll reaches 3, it stays at 3 to the limit of fragment range (see above).

In any hex outside the hex of explosion, the cover and concealment modifiers on p. B118 apply to this roll, if the explosion is at ground level.

Cover from air bursts must be overhead cover. Varying positions does not provide protection; lying prone under an air burst doesn't decrease the amount of body exposed to the rain of fragments!

If using the hit location chart, roll randomly for the location of each attack that hits.

***Defense Against Fragmentation Damage:*** PD has no effect on fragmentation damage and there is no active defense against it. A character who knows an explosion is about to occur may dive for cover - see *Dodging Explosions,* in the sidebar.

***DR and Fragmentation Damage:*** DR protects normally against fragmentation damage, as does the DR of any cover between the explosion and the victim.

***Contact Damage:*** If an explosive goes off in *direct* contact with flesh, fragmentation damage is doubled.

## Flinch, Buck Fever and Bullet Shyness (Continued)

### *Buck Fever*

"Buck fever" is the colloquial name for the sharp decrease in accuracy that mental stress can induce. It is most common for inexperienced shooters, but can affect anyone.

The GM must determine if the stress of a character is such that a Will roll is required to resist buck fever. Modifiers to the Will roll should be based on how important success or failure is to the character: -1 to win or lose ah important match, -3 for the only likely shot at a trophy, -5 to finish a hostage-taker before he kill (-10 or more if the hostage is the firer's beloved child!). Advantages and disadvan-tages (Overconfidence, for example should also be taken into account; Combat Reflexes gives +2 to the roll. If the Will roll is a success; the shot is taken as nor-mal. If failed, the shooter can still fire, but the shot is, at best, at the same penalty that was assessed to the Will roll.

The GM assesses the buck-fever penalty, but he does not have to announce it simply as, "You get a -5 to Guns." This is a good time to tell character what is happening and let him roleplay his decision

*Example:*

Player: "I'm taking aim with my rifle at the IRA terrorist."

GM: "You have trouble focusing: somehow the sights and the target won't align, sweat stings your eyes and the faces of the hostages keep sweeping across your vision. The rifie quivers in your hands. Somehow, the old, familiar feel from hold on the range is gone; your trigger finger seems to be on someone else's hand."

Player: "Is this a subtile indication of my skill is being negatively affected by stress?"

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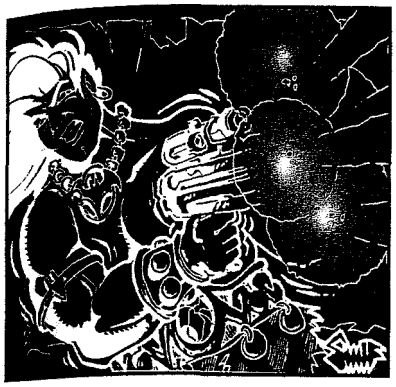


### *Shaped-Charge Weapons*

These are specially-shaped explosive charges built to penetrate armor. They inflict concussion damage like any other explosive, but no fragmentation damage. However, on a direct hit, the target's DR protects at only one-tenth its normal value; i.e., it has a (10) armor divisor. This is a big difference from armor DR being squared vs. concussion damage!

However, a shaped-charge warhead fired at a soft target may not detonate. Roll 3d vs. armor DR+3. (In the case of nonrigid armor, use only half its DR.) If the roll fails, the weapon doesn't go off. Instead, it inflicts one-sixth its normal damage as crushing damage, and has no armor divisor.

Damage from shaped-charge rounds counts as flame damage for setting fires.

## Flinch, Buck Fever and Bullet Shyness (Continued)

***Bullet Shyness***

Very few people want to get shot. Hence, the sight or sound of bullets in the immediate vicinity should make aiming and firing much more difficult (One reason snipers have such a good kill-to-shot ratio is that they usually get to shoot first.) GMs should reduce the accuracy of NPCs whose positions are being swept with fire, even if none are being hit. PCs should be restrained from overexposure by the traditional system: "Stick it up - lose it!" Modifiers to any to-hit roll for a firer who is being shot at might go from -1 for an occasional stray round to -10 for a concentrated blast of auto-fire which is whipping dust and splinters like a hurricane.

## Other Problems With Accurate Shooting

Anything that disturbs a shooter's ability to hold steady while aiming can degrade accuracy. Physical exercise (a hard chase a run up a staircase a scuffle with a sus-pect) should take away some accuracy. The amount should depend on the amount of exercise as compared to the HT of the shooter (endurance is more important than strength for this) Illness especially fever and shakes, also make shooting harder. Disteraction at the moment of aim can be disastrous. Anything that hurts vision - dripping sweat, blowing sand badly fitted goggles (especially gas masks -3 at least!) - hurts accuracy.

# Firearms in Combat - Expanded Rules

### *Automatic Weapons*

***The Cone of Fire and the Beaten Zone****:* As the bullets of a burst travel toward the target, they are dispersed around the line between the gun and the target. The pattern of dispersal is called the *cone of fire*. The bullets strike the ground in an oval pattern, with the long axis parallel to the gun-target line; this oval is called the *beaten zone*. The goal of automatic weapons fire is to maximize the possibility of hits by centering the cone of fire or the beaten zone on the target.

"Grazing fire" is such that the center of the cone of fire is never above half the height of a standing man. Grazing fire and beaten zones can be used as barricades of fire even when no target is visible. The burst is fired, and any man-sized target on the line of fire, or in the beaten zone, is attacked by all the rounds of the burst at an effective skill of 6. This rule should also be used whenever characters fire unaimed bursts of automatic fire in the general direction of a foe.

***Very High RoF****:* Some automatic weapons have RoF so high that figuring hits and damage in four-round groups takes too long. This is especially true of aircraft and anti-aircraft weapons. It is both difficult and unrealistic to use four-round groups in such a case. Instead, use groups of 20 for any weapon with an RoF of 20 or more. The recoil penalties given in weapon tables assume mat all such weapons will be fired in groups of 20 rounds.

Determine the number of hits using the table below:

| *Roll Made By:* | *-3* | *-2* | *-1* | *0-1* | *2-4* | 5+ |
|---|---|---|---|---|---|---|
| Number of Hits: | 0 | 1 | 5 | 10 | 15 | 20 |

Thus if the roll needed to hit is 14, and a 12 is rolled, 15 rounds hit the target. If the RoF does not divide evenly by 20, either ignore the excess or calculate fire for it in groups of 4 (see p. B120).

If the target gets a PD or Dodge roll, this can also be simplified. Rather than rolling defense against each shot, make one roll that applies to all shots in the entire 20-shot group.

***Walking the Burst****:* A burst is a stream of bullets, like the stream of water from a garden hose. The stream of bullets can be moved, which is very useful in combat. This is called *walking the burst* onto the target. This first requires *acquiring the burst*, either by seeing the bullet impacts or by observing the tracer flight. Bullet

impacts can only be observed in the light; tracer can only be observed in the dark. It might be possible to observe both, e.g., by firing tracer from the dark at a man illuminated by a searchlight.

Make a Vision roll to acquire the burst. In the dark, there is a +1 for using a tracer mix of at least one in five. There is a +2 for using all tracer in the dark. Firing tracer gives away the firer's position, of course.

Any burst of more than four rounds can be walked. On the fifth (or any subsequent) round of a single acquired burst, the firer can roll to hit on the same target. The group is at +1 plus the Accuracy bonus of the weapon; that is, the visually acquired burst gives the same effect as having aimed for 1 second. (Each subsequent group is at an additional +1. to a maximum of +3, as long as fire is continuous, at the same target, and visually observable by the firer.)

After each four rounds of any one burst, the firer can roll again to try and hit that target better, at the skill increase for walking the burst.

Each successive four-round group does have the recoil penalty for automatic fire - the gun's regular recoil penalty, increased by itself for each group fired.

### *Recoil*

Guns recoil because of the Newtonian laws of motion. Technically, recoil is a consequence of conservation of momentum; the mass x velocity of the ejecta (bullets, powder gases, anything that goes out the muzzle) going in one direction must equal the mass x velocity of the gun going in the opposite direction.

***Felt recoil*** or ***kick*** is more significant for gaming (at least in a 1-G field for more-or-less human firers). Felt recoil is a matter not only of the momentum of the gun but of it's controllability. Controllability is affected by stock and grip design, action type, compensators and the size, strength and position of the firer. This is simulated by the *Rcl* number, expressed as a negative, in the stats for each weapon in the weapon tables.

This number makes some assumptions about the variables affecting felt recoil; that this is the weapon as normally sold or issued, and that it is being fired from a steady position, with *both* hands holding the gun, by a human within the usual norms for size and strength (the 8 to 14 ST range in *GURPS).* The GM can choose to increase Rcl for different conditions. These penalties are cumulative:

(1) Double Rcl for any weapon fired one-handed.
(2) Double Rcl for any long-arm with the butt-stock removed or folded during filing.
(3) Double Rcl for any strained, unbalanced or peculiar firing position.
(4) Double Rcl for each point of ST below the minimum ST listed for the weapon.

***Non-Automatic Weapons Recoil:*** The Rcl penalty is applied to the *second* and subsequent shots from the same gun, unless there is a minimum 1-second pause between shots to reestablish shooting position. If the ST of the firer is less than the minimum for the weapon, apply the Rcl penalty unless there is a 2-second pause.

***Light Automatic Weapons Recoil:*** For automatic fire, the Rcl penalty applies even to the *first* group of up to four shots of a burst (each shot moves the weapon some), and each subsequent group of up to four rounds causes the Rcl penalty to increase by itself; e.g., if three successive groups are fired from a weapon with Rcl -1, they are at -1, -2 and -3 to skill.

***Heavy Automatic Weapons Recoil:*** Heavy automatic weapons are designed to be fired from a mount, such as a tripod or pintle. The Rcl listed is for the gun fired from a correct mount, with the mount solidly placed and the gunner in a proper position. Firing such a gun when it is not solidly mounted can be really difficult! As a guide, *quadruple* Rcl penalties for any weapon that requires the Gunner skill if it is not properly mounted; *double* Rcl for weapons that use the Guns skill if they are not at least sitting firmly on their bipods. Multiply Rcl by *8* for such monster cartridges as the .50 BMG and 14.5mm Russian.

## Reduced Hit Probability for Heavy Weapons

The previous sidebars cover several subjective rules for reduced weapon accuracy reflecting the fact that most soldiers do not aim and fire well when under stress, The same is true for the crews of heavy weapons (vehicle weapons, howitzers, etc.).

To routinely reduce the lethality of heavy weapons from "textbook" to "realistic" levels the GM may want to use this rule:

Unless a NPC is firing at someone in a ambush-type situation (e.g., an airplane sneaks up on another from behind) or *has* Combat Reflexes, add only half the Accuracy bonus when aiming.

This also reflects the advantage that ace pilots used to make them aces: the best way to shoot accurately is to sneak up on someone and let him have it before the bullets start flying!

Optionally, this rule can also be applied to PCs. On the other hand, letting all PCs remain "cool" in a combat situation does allow them to perform more heroically - it's up to the GM.

## Aiming Successive Groups

The *Aiming Successive Groups* rule (p. B121) allows automatic weapons to be used like a garden hose, aiming as they fire to get the full Accuracy bonus; details are also given under *Walking the Burst*, p. 66.

While this is a legitimate tactic in some situations, GMs may find that the interests of play balance are better served by reducing this bonus to *half* of Accuracy, rounding down, when firing under less-than-ideal circumstances. If the *Reduced Hit Probability* optional rule (above) comes into play, this bonus should" be further reduced, to one quarter the Accuracy bonus, Professional soldiers are usually taught that automatic fire is far less accurate than single aimed shots; this rule makes it so.

Reserve the full Accuracy bonus for actual aimed fire, or for automatic fire on the firing range.

## Weapons Without SS Numbers

Weapons with "no" as their SS numbers are too large to be used to make snap shots - all shots must be aimed. They also take longer to aim than other weapons.

A weapon that is aimed for 1 turn receives only half its Accuracy bonus (round down). A weapon aimed for 2 turns receives its full Accuracy bonus. After aiming for 2 turns, the usuaI +1 per turn of aim-ing (to a maximum of +3) is added.

A weapon capable of autofire that lacks a SS number may not benefit from the *Aiming Successive Groups* rule (see above).

## Retreating Clarified

The *Retreat* option on p. B109 is often misunderstood. The following two rules are intended to help clarify things:

***Foes with Multiple Attacks:*** It is important to realize that one retreats from a particular Joe; the retreat is not part of a particular *defense roll.* If you retreat from a foe who can make multiple attacks (e.g., via super powers, martial arts abilities or an All-Out Attack), the +3 bonus applies to *at!* Active Defense rolls you make against him that turn. You may only retreat from *one* foe each turn, but this may affect any *number* of defense rolls made against his attacks.

***Retreat and Movement:*** The backward step taken when retreating does not count against your character's Move score on the following turn. The justification is that your character is being driven back by the force of an attack, not just stepping. However, there are those who feel that this is unrealistic. As an *optional* rule, a character who retreats has his Move and Step each reduced by 1 on the following turn. Since most characters have a Step of 1, this means that they may not take the "Step" portion of a "Step and ..." maneuver; a character with a Step of 2 could only Step 1 hex, etc.

### *Malfunctions*

Any gun can fail to work because of a mechanical malfunction or operator error. Operator errors are covered by the critical miss rules. A critical miss on a firing attempt happens only on a natural roll of 17 or 18, or on a roll 10 higher than adjusted skill. A *malfunction* is a mechanical failure of the weapon or ammunition. A simple malfunction, unlike a critical failure, does not endanger the user.

All weapons have a *malfunction number,* or "Malf." This is always specified in the appropriate weapon table. For instance, a matchlock has a Malf of 14. This means that any roll of 14 or more, *unless* it is a critical failure, will be a malfunction; for a shooter of average skill, a roll of 14,15 or 16 is a malfunction, while a 17 or 18 is a critical miss. Malfunction is based on the number rolled, with modifiers for weapon reliability and conditions. It is not affected by modifiers for target size, speed and range, accuracy, aiming, bracing or sights.

The better the weapon, the higher the malfunction number; most weapons of TL6+ have a malfunction number of *Crit.,* because they are reliable enough that. treated properly, they almost always fire when the trigger is pulled. *Crit.* means that the weapon malfunctions only on a critical miss, when the roll on the Critical Miss Table indicates a malfunction.

A critical failure with any weapon can turn out to be a malfunction, though! All "dud," "jam" and "weapon breaks" results on the *Firearm Critical Miss Table* (p. B202) should be treated as malfunctions. The GM rolls; the player does not know whether his weapon's problem is one that can be fixed or not until he tries *Immediate Action* (see below).

***Exception:*** TL8+ weapons may be rated as *Ver.* or *Ver. (Crit.). Ver.* means mat the weapon requires a verification roll - another roll against skill. Any failure is the malfunction from the table; any success is simply a miss. *Ver. (Crit.)* means that the verification roll must be another critical miss for the weapon to malfunction. Any other result is simply a miss.


For early weapons, including all black powder weapons, the only likely malfunction is a simple misfire ... the gun does not go off. When automatic weapons are invented, a second common malfunction appears: *stoppage.* The weapon fires one or more shots, then stops. Usually a stoppage is a jam - the next round in sequence for a repeating weapon cannot reach the firing chamber. For single-shots, a stoppage means that the gun cannot be reloaded without repair. The following factors affect Malf:

***Skill:*** Malfunctions are far likelier for an untrained shooter. Any shooter with a skill of 10 or less has his weapon's Malf number decreased by 1. (Remember, a decrease in Malf number makes a malfunction *more* likely.)

***Environment:*** Malfunction rates are also affected by the conditions surrounding the weapon and ammunition, as determined by the GM. As a rule of thumb, lower Malf by 1 in any circumstances where the *Slime, Sand and Equipment Failure* rules (p. 6) would apply.

***Mistreated Weapons:*** Abuse will make any weapon less reliable. The GM determines the penalty, if any, for using the gun snatched from the mud, or found abandoned for 40 years in a closet, or rolled on by a collapsing horse. This may be a lowered Malf, a decrease in Acc, or some other penalty. Rolls against Guns, Gunner or Armoury can attempt to detect and correct the mechanical flaws of a weapon.

### *Immediate Action*

For every kind of gun, some failures are more likely than others, and there is a standard "try this first" procedure that can be applied, as soon as it fails, which will give the best chance of correcting the problem and returning the gun to service. This is called *Immediate Action.* All malfunctions, as distinct from critical misses, are subject to Immediate Action.

Immediate Action is represented by a roll against Black Powder Weapons, Guns, Beam Weapons (for ultra-tech devices). Gunner or Armoury, as applicable. The player announces that his character is trying Immediate Action. The roll is made by the GM, in secret.

An Immediate Action roll is at -1 for any weapon that is not commonly used by me firer, -2 for an unfamiliar weapon of a familiar type, -5 for an unfamiliar type of weapon, -6 plus the difference in TL for a weapon from another TL and -10 for some completely off-the-wall weapon totally unlike anything the shooter has ever seen.

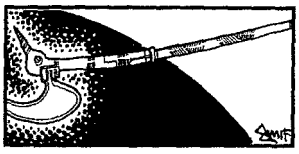
When a weapon malfunctions, the weapon-user does *not* have to take Immediate Action, but the alternative is a weapon that cannot be fired. The time required for Immediate Action is different for each weapon. It is usually variable (e.g., 2d seconds), though it may be fixed for some weapons. For most weapons, a critical success means that the weapon is restored to service *immediately.*

On anything but a critical success, the GM rolls to determine how long the attempt will take. He does not tell the player this. At the end of this time, a successful Immediate Action roll restores the weapon to service. A failed roll leaves the weapon in non-firing condition: another attempt can be made, in just the same way. A critical failure puts the weapon out of action until repaired by an armourer at the appropriate TL.

The character can abandon Immediate Action at any time; the player announces at the beginning of his turn whether he is continuing Immediate Action or not. If he continues, the GM tells him whether or not the gun can be fired that turn. If Immediate Action is abandoned, it can be started again later; the restart requires another roll for time.

*Immediate Action For Revolvers and Multi-Barrels:* If a revolver malfunctions, the user can always hope the problem was with the ammunition and pull the trigger again, rather than taking Immediate Action to fix the gun. Similarly, the user of a multi-barrel gun can try to fire another barrel

If the malfunction was the result of a critical failure, the GM already knows what is wrong with the gun, and can play it accordingly. Otherwise, the GM should immediately roll against the weapon's Malf number, *minus 1.* For weapons with no Malf number, roll against a 15. A "failed" roll indicates a true malfunction; the next bullet or barrel won't work either. A successful roll means the next shot can be fired normally.



# High-Skill Feinting

In *GURPS,* a DX 13 fighter with 8 points in a P/A weapon skill and a DX 16 fighter with only 1 point in the same skill both have skill 15, and are equally good at feinting and defending.

In reality, however, a well-trained fighter can usually feint a less well-trained fighter, unless there is an *extreme* difference in "natural agility" (i.e., DX). While it is true that "skill 15 is skill 15" for the purpose of hitting the spot you want, feinting represents more than this - it also represents having seen and tried many types of feints in practice and actual combat. This is a function of the number of hours you have practiced and the number of fighters you have faced.

## Grappling - Expanded Rules

These rules clarify and expand upon the *Grapple* rules on p. B111, and also apply to the various special holds presented in *GURPS Martial Arts.*

### *DX Penalty*

When an attacker successfully grapples his foe's upper body (hit locations 3-10) with *both* hands, the defender has -4 DX on all actions that involve the arms *except* for DX-based rolls to break free. An arm that is actually grappled cannot be used at all until the victim breaks free. LOWER body actions - kicking, knee strikes and the like- are not affected.

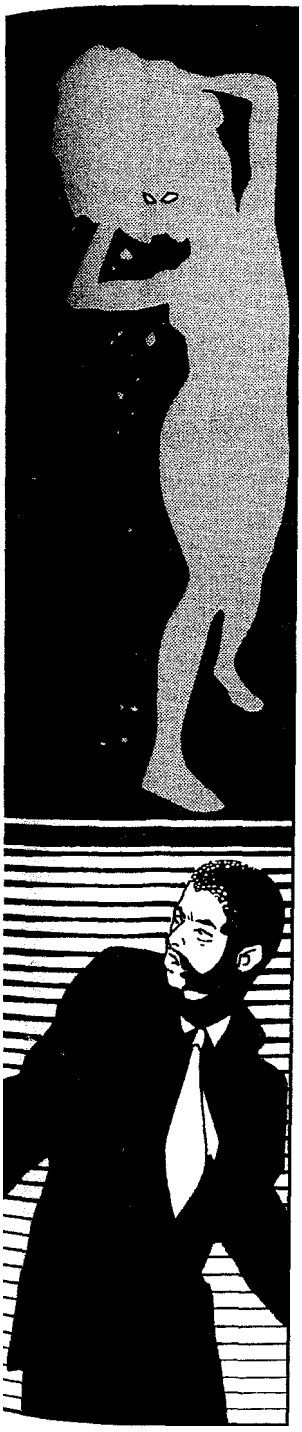
When an attacker successfully grapples his foe's lower body (hit locations 11-16) with *both* hands, the defender has -4 DX on all actions that involve the legs (except for DX-based rolls to break free). A leg that is actually grappled cannot be used at all until the victim breaks free. Upper-body actions - punching, grappling, etc. - are not affected.

One-handed grapples do not affect DX but prevent the use of the body part grabbed until the defender breaks free.

### *Hit Location*

Hit locations are *not* used when grappling; grappling is always a Quick Contest of the atacker's DX+3 versus the defender's DX, and the part being grabbed is merely a special effect. It is much easier to grab someone than to hit a specific body part with a weapon! For instance, to choke or strangle, simply state that you are grappling with both hands and trying for the neck. To cover someone's eyes, ears or mouth with your hands after you have grappled him by the head, you must win separate Quick Contest of DX every turn. If you have already grappled someone and wish to change locations, a new Quick Contest must be carried out.

*Continued on page 71...*



By this logic, since each point in a weapon skill represents 200 hours of training, it follows that the fighter who has the most *points* in his weapon skill should get a bonus to feint. To reflect this, use the following optional rule:

***If a character's weapon skill is higher than his DX, add the difference to his skill when feinting or being feinted.*** (There is no need to subtract anything if a character's skill is *lower* than his DX, however - there is little difference in skills at such beginning levels.)

For example, since his skill is 2 higher than his DX, the DX 13 fighter mentioned above would add +2 to his skill when feinting or being feinted, for an effective skill of 17, but would still attack and defend using his true skill of 15. The DX 16 fighter would use his skill of 15 for all purposes.

# Invisibility and Darkness

In a combat situation where some fighters can't see their foes, there will be certain effects on attack and defense abilities:

***Attacker cannot see anything*** (e.g., the attacker is blind or in total darkness): Attacker must make a Hearing-2 roll (or use some other method) to discover his foe's location. If the Hearing roll is failed, he may swing at a randomly chosen hex. His attack roll will be at -10 (-6 if he is accustomed to being blind), and cannot be aimed at any particular body part.

***Attacker cannot see his foe, but can see his other surroundings*** (e.g., his foe is invisible): As above, except the attack penalty is only -6.

***Attacker cannot see his foe, but knows his location for sure*** (e.g., his foe is in a lone smoke-filled hex): As above, but no Hearing roll is required and the attack penalty is only -4.

***Defender cannot see attacker*** (e.g., his foe is invisible): If the defender is aware he is being attacked and makes a Hearing-2 roll, he defends at -4. Otherwise he gets no active defense at all! If the attacker is in a hex of smoke or unnatural darkness, but the defender is not, he defends normally since he can see the weapon coming.

***Example:*** Mordecai is invisible, and fighting a bandit in daylight. The bandit must make a Hearing-2 roll to locate Mordecai before each attack - if he succeeds he attacks at -6. Mordecai attacks normally and defends normally. Any defense roll me bandit makes against an attack by Mordecai is at -4, and if he misses his Hearing -2 roll he gets no active defense at all.

Note also that an unseen fighter can safely try things (stand on a table, lie down, etc.) that a normal fighter could never do. He may also just wait in a comer until his foe is exhausted!

# Shield PD as Cover

In ***GURPS,*** the PD of a shield adds to a fighter's defense roll. However, high defenses can create some very long battles, since the battle becomes a die-rolling contest to see who can roll a critical success or failure first. This isn't always desirable. The following optional rule changes the way shield PD works, and can speed up combat somewhat.

Instead of considering a shield as an extension of a combatant's armor (adding to his PD), a shield can be thought of as providing cover for the defender. Against ranged attacks, cover *subtracts* from the attacker's skill rather than adding to the defender's PD. This rule can be adapted to shields, even for melee combat, as follows:

***The PD of a shield is subtracted from an attacker's to-hit roll instead of adding to the shield-user's defense roll.***

By subtracting shield PD from the foe's to-hit roll, defenses are lowered enough that a skilled fighter can win a quicker victory, yet shields still provide useful protection against less-skilled foes.

# OPTIONAL CINEMATIC

# COMBAT RULES

The rules that follow are suited exclusively to Cinematic campaigns. GMs running down-to-earth campaigns should disallow most or all of them. Alternatively, the GM can choose the ones he prefers, customizing his campaign to achieve a balance between heroics and realism. Be sure to tell your players beforehand which rules apply to your campaign!

## Chambara Fighting

Chambara is the Japanese name for a (not highly authentic) movie or TV show featuring heroic, highly skilled martial artists, usually ronin and ninja. This word is also sometimes applied to martial arts movies in general, particularly those where the main characters have superhuman abilities.

Chambara fighting style is fast and furious, with characters jumping through the air over enemy blows. This is the ideal Cinematic style for a *GURPS Martial Arts* campaign, Only fighters with combat skills at 15 or better and the Trained by a Master advantage (p. CI31) may use these Chambara "bonuses."

A Chambara fighter using bare hands or a ready, balanced weapon may make one additional attack and parry per turn for every 3 points of weapon or Karate skill over 12. This will give a tighter two attacks at skill level 15, three at level 18, and so on. The Chambara fighter can skip one attack in order to change facing - that is, each facing change (to any facing) "costs" one attack.

A Chambara fighter's Wild Swing (see p. B105) is at a -5 hit penalty, but is not limited to a maximum attack roll of 9.

### *Chambara Defenses*

*A* Chambara fighter with the Combat Reflexes advantage can sense a surprise attack from behind. Even if the fighter does not change facing, the attack still counts as coming from the side, not the rear, just as in a "runaround" attack (see p. BIOS) -it is only -2 to the defender's active defense.

The typical Chambara defense is to dodge by jumping. A DX (or Jumping or Acrobatics) roll is required. If the roll is successful, the fighter has *double* his normal Dodge defense against that attack. If the roll fails, he gets only the normal Dodge defense. On a critical failure, *he falls.* Each attempt to dodge by jumping means the fighter may make one less attack on his next turn.

A Chambara fighter may also evade in close combat, passing through a foe's hex, by Jumping. This tactic also requires a successful DX (or Jumping or Acrobatics) roll *and* costs 4 Move points (virtually ruling it out for average people with heavy encumbrance). If the roll fails, the attempt to evade failed. If the roll succeeds, the jumper is at +5 on the Contest of DX to evade (p. B113).

GMs should require the Trained by a Master advantage as a prerequisite for these rules. Chambara combat is best suited to adventures with enormous numbers of NPC spear-carriers whose only function is to be carved up by the hero.

## Grappling - Expanded Rules (Continued)

***Retreating***

A character may, optionally, be permitted to retreat from a grapple, as per p. B109. In this case, the attacker steps into close combat and rolls a Quick Contest of his DX+3 vs. the defender's DX+3 (not DX). If he wins, the grapple proceeds as usual; if he loses or ties, the defender may immediately step back out of close combat, This counts as his one retreat for the turn.

***Wrestling for Weapons***

Wrestling for a weapon is *dangerous!* If a weapon or weapon arm is grabbed (see p. B111), *neither* fighter may use the weapon until he gains control of it. In the case of a cutting or impaling weapon, or a firearm, the GM should roll 3d each turn to see if anyone was injured in the struggle. On a 3-4, the person who initialed the grab is hurt; on a 17-18, the person who was grabbed is hurt. A cutting or impaling weapon does 1d-1 damage or regular damage based upon the stronger character's ST, whichever is *less;* a firearm does its usual damage. Roll hit location randomly; a knife can slip and stab someone in the foot!

## Initiative

"Initiative" is a term used to express the concept of "who goes next." In most cases, initiative should be determined by the Move value, as per the sidebar on p. B95.

To determine the turn sequence of attackers with multiple attacks, use the following rule. The first attack uses the character's Move value; the second uses Move-1, the third Move-2, and so on.

*Example:* The Skull has three attacks and Move 7; he faces a thug with one attack and Move 6. The Skull attacks first; his second attack has the same Move as his opponent's (in that case, let the character with the highest Basic Speed go first); his third attack will come after his enemy's turn.

If one fighter has an opponent pinned, or in an arm or leg hold, the immobilized fighter takes his turn normally if he is slower than his foe. If he is faster than his foe, he does *not* go first; he goes immediately after the foe who has immobilized him.

## Controlling Multiple Attacks

The optional Multiple Attack rules (see main text) lead to problems in some campaigns. Some players contrive to have their characters stretch the already unrealistic limits of those rules to their breaking point. Adventurers with half a dozen attacks per second or more become commonplace, and then are given some advantages (such as Full Coordination, p. CI56, or Altered Time Rate, p. CI49) to allegedly give them 12+ attacks per second! Outlined below are some ways for GMs to prevent abuses.

### *A Second's Still a Second*

No matter *how* extraordinary a person's reaction times are, there are limits to how much he can accomplish in one second. GMs should feel free to disallow any complex maneuver used with other attacks. Most of the multiple attacks should be straightforward kicks and punches. A Jump Kick should count as two attacks, for instance. An attack which actually causes the attacker to *fall down* (e.g., a Drop Kick, or any kick on a failed DX roll after a miss) should immediately *end* the attacker's turn, regardless of how many attacks the attacker has left.

### *Super Martial Artists*

The Altered Time Rate advantage (p. CI49) allows someone to "live" seconds for each real second mat passes; additional levels increase this time accordingly. Some players have then gleefully designed a Chambara-slyle martial artist (p. 71} and given him that advantage, doubling or tripling his already numerous attacks. This is an abuse; the Chambara fighting rules already assume the fighter is moving faster than is humanly possible.

Each level of Altered Time Rate should increase the number of attacks by *one.* So a character with Karate-21 (normally giving him four attacks per second) and 2 levels of Altered Time Rate (which would give him 3 seconds of subjective-time per turn) would not have 12 attacks per second, but only six attacks per second.

The real advantage of Altered Time Rate is that it allows actions other than extra attacks to be made. The combatant above could opt to simply take his usual four attacks, for example, and use his two extra seconds of subjective time to ready two weapons, or to concentrate on some power for 2 seconds.

### *Circumstances*

No matter how many attacks a person has, some situation will prevent him from using them. If the skirmisher is dodging the full RoF of a submachine gun, he should probably be limited in the number of actions he can take - he has been literal-ly dodging bullets for a full second

# Multiple Actions for High Move

This optional rule lets very fast characters take more actions, as well as moving faster.

For every *full* 6 points of Move, you can take one maneuver per turn, minimum of one. This does *not* speed up concentration! If a skill requires a turn of concentration, that means one *full* turn. This will allow someone with a Move of 12 to Step and Ready, then Step and Attack in the same turn. One additional parry and block are added per maneuver after the first.

Enhanced Move, Super Running, Super Flight and Super Swimming do *not* count toward Move when determining this number! Only count basic Move, modified by encumbrance.

## *Increased Step for High Move*

In ordinary combat, the *Step* portion of a *Step and (anything)* maneuver is a 1-hex move. This reduces the effectiveness of high speed, as a character can only take a small portion of his Move without losing his active defenses.

This is perfectly acceptable for characters with low Moves, but someone with Move 15 should be able to cover more ground while drawing a pistol than someone with Move 5.

To reflect this, for every 4 *full* points of Move, Step is increased by 1, with a minimum value of 1. A character with Move 0 to 7 will have a Step of 1; Move 8 to 11 has a Step of 2, Move 12 to 15 has a Step of 3, and so on. This will allow someone with Step 3 to move 3 hexes and still ready a weapon using the *Step and Ready* maneuver.

Multiple-hex Steps may be broken up in a turn (e.g., a person with Step 2 could move 1 hex, fire a weapon, then move 1 more hex.) A character who has multiple actions may distribute his Step between those actions in any way he wishes.

# Multiple Attacks

Fiction is full of warriors who can fight two, three, or more opponents at the same time, moving with unnatural speed (helped in the movies by obliging stunt men who wait in place to be hit by the protagonist). Even in real life, trained fighters have demonstrated incredible reaction time that would probably allow them to attack more than once in a second. To simulate this, three sets of optional rules can be used:

***Cinematic Combat:*** As described on p. B183, this rule allows double the usual number of blocks and parries per round.

***Skill Bonuses:*** For every *full* 8 points of skill, the character gets one attack and one parry. In other words, a fighter gets one *extra* attack and parry at level 16, two at level 24, and so on. This allows only expert and better characters to have this huge advantage in combat.

***Chambara Rules:*** As described on p. 71, these rules allow a fighter to make one extra attack and parry for every *3* points of skill over level 12, but they are limited to those with the Trained by a Master (or Weapon Master) advantage.

***All of the Above:*** These three roles can also be used together, to allow for an interesting mix of character types, and to add variety to a PC party.

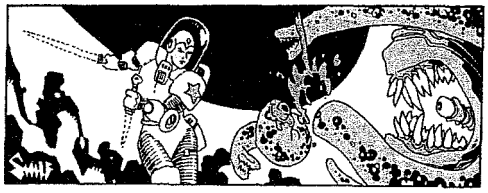
For instance, the Cinematic Combat rules of p. B183 would apply to any character with low combat skill levels. Highly trained characters (skill 16+) would use the second rule, and fighters who are Trained By A Master would use the Chambara fighting style.

If the *Multiple Actions for High Move* rule (above) is also being used, then that rule applies to *all* characters, and the number of extra attacks and parries determined by skill and by Move are added together.

# Multiple Attack Rules

Skill bonuses, the Chambara rules and multiple actions for high Move will easily lead to fighters who can attack and parry two, three or even more times in a round. Although this represents Cinematic "reality." players may unbalance the game by abusing those rules, and combat may become the center of the game. Also, a number of questions will arise about the application of those rules under special circumstances. Here are some guidelines for multiple attacks; the GM should use some or all of them to control game balance.

## *All-Out Attacks*



If a character with multiple attacks makes an *All-Out Attack,* he loses all his active defenses, but can still dodge once (he cannot use the Chambara jumping dodge on p. 71, however). By using the *All-Out Attack,* he can add one extra strike for every *two* attacks he normally has, rounding *down.* Alternatively, he can choose *any one* of the bonuses applicable to an *All-Out Attack* (+4 to hit. +2 damage, etc. - see p. B105) and apply it to *all* of his normal attacks, still at the cost of all his active defenses. This makes *All-Out Attacks* rather inefficient and undesirable, as well they should be. Even in the movies, very few trained fighters are berserkers who will use such maneuvers.

## *Feinting*

A character can feint and attack on the same round, by sacrificing one attack for the feint. He still keeps his parry. The feint will help the *next* attack, as per p. B96, but not any subsequent blows.

## *Missile Weapons*

Characters with multiple attacks may reduce the ready time of a missile weapon by 1 second for each attack spent, effectively trading those extra attacks for Ready maneuvers.

For instance, a bow takes 2 seconds to ready (p. B96). An archer with three attacks can ready and shoot an arrow in 1 turn; one with four attacks can ready and shoot an arrow, then draw another arrow just in time for the next turn. As well, when using these Cinematic rules, Fast-Draw (Arrow) rolls will allow the archer to fee once for even attack he has! The Fast-Draw roll must be made for every arrow shot, at a cumulative -1 for every arrow fired after the first one. None of these shots will be aimed; if the archer's modified skill is less than the bow's Snap Shot number, each shot will be at an additional -4 (see p. B115).

GMs may impose some special requirements for multiple attacks with ranged weapons, such as the Zen Archery skill (p. CI145), the Trained by a Master or Weapon Master advantages, or all of the above.

## *Thrown Weapons*

If a fighter has several attacks, any or all of them may involve thrown knives, shuriken, etc., with the following conditions. The attacker must have all the weapons to be thrown in his hand; if not, he must have them in an easy to reach pocket/sheath, making a Fast-Draw-3 roll for each weapon drawn after the first one in a turn. As with missile weapons, the GM may limit this maneuver by requiring the Throwing Art skill (p. CI145), the Weapon Master advantage, or both.

## Faster Combat

In a Cinematic or "four-color" campaign, some characters will have such high Dodges that it is almost impossible to hit them, no matter what the attacker's skill level. This has the advantage of simulating Cinematic combat very well - heroes rare get hit by gunfire, fragments or flying shuriken. Unfortunately, this can also set combat down to a crawl, as only critical successes or failures will make a difference in the fight. There are several mechanisms that can be used to speed up combat. All of them are optional rules.

### *Critical Success*

Normally, a 3 or 4 is always a critical success, a 5 when modified skill is 15, and a 6 if modified skill is 16+. To make critical success more likely, a 7 is a critical success for a modified skill of 20, an 8 at 25, a 9 at 30 and a 10 at skill level 35. The progression stops here, giving the fighter a 50% chance of achieving a critical each time he attacks!

The results are combined with the rule on p. B86 and summarized in this handy table:

### *Extended Critical Table*

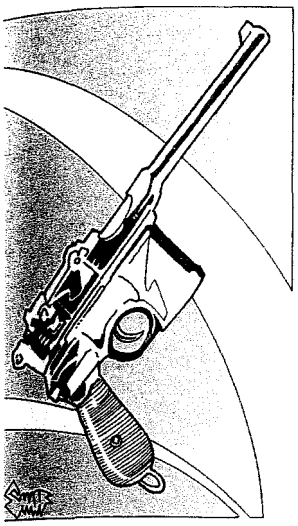
| *Modified Skill Level* | *Critical Success* | *Critical. Failure* |
|---|---|---|
| 2 or less | NR* | NR* |
| 3 | 3 | 13-18 |
| 4 | 3-4 | 14-18 |
| 5 | 3-4 | 15-18 |
| 6 | 3-4 | 16-18 |
| 7-14 | 3-4 | 17-18 |
| 15 | 3-5 | 17-18 |
| 16-19 | 3-6 | 18 |
| 20-24 | 3-7 | 18 |
| 25-29 | 3-8 | 18 |
| 30-34 | 3-9 | 18 |
| 35 or more | 3-10 | 18 |

*NR: No roll. If modified skill level is 2 or less, no roll is allowed at all, uless this is a defensive roll - pp. B89, B90, defence roll of 3 or 4 always succeed, defense of 2 critically fails on a 12 and defence of 1 on an 11.

### *Quick Contests*

Fof fighters with Dodges of 13+, is recommended that combat be resolved with a Quick Contest of Skills between the attacker's weapon or anarmed combat skill level versus Dodge. This will keep contents from bogging down into an intermited series of dodged attacks.

The character should be allowed to use his Parry and Block defence normally, but these can be used only a few times per turn.



## Only the Best Shall Win: An Optional Rule

When two highly-skilled fighters mix it up, fights can fast almost endlessly because attack on both sides are easily defended against. One way to deal with this problem is to increase the chance for critical hits (see above). Another system is presented here. *Note:* this optional rule will give high-skilled characters an enormous advantage over inferior foes.

When an attack is rolled, keep track of how much the modified skill roll succeeded by; for every 2 points the attack succeeded by (rounded down), the defender is at -1 to *any* Active Defense against that attack (not just Dodge, as in the case of the Quick Contest optional rule presented above).

*Example:* Master Lung has Karate-24, and he is fighting the Skull (Karate-18, Kicking-18). Master Lung chops at the Skull's neck (Karate-5 roll), and rolls a 12, making his modified skill roll by 7. The Skull's normal Parry is 13, but he is at -3 (7 divided by 2, rounded down) for a total of 10. He rolls an 8 and defends. The Skull's counterattack is a kick to the body; he rolls a 9, beating his Kicking maneuver by 9. Master Lung's super-high Parry of of 16 is at -4; he rolls a 13 and is hit!

This rule will tend to make characters aim at easy targets in combat with skilled opponents, since they will want to inflict the maximum penalty possible on their enemies' defenses. A huge difference in skill will usually spell doom for the lesser character (it usually does anyway, but with this method it happens more quickly).

### *Parrying and All-Out Defense*

For every attack he has, a combatant can parry once. The number of blocks and dodges he has remains the same. If he chooses the All-Out Defense maneuver, the number of parries he has doubles, and he can defend twice against the same attack. However, a fighter cannot use the All-Out Defense with one of his attacks and still attack normally with the others. By using this maneuver, he loses *all* his attacks for that turn.

### *Readying*

Weapons that become unready after attacking or parrying (such as axes, nunchakus, etc.) can be readied on the same turn by spending one attack and one parry. For instance, a fighter with three attacks could attack with an axe once, ready it, and strike with it a second time on the same turn. If he used the unbalanced weapon to parry as well, it would cost him another attack and parry to ready it. In that case, he could attack and parry only once, but his weapon would be ready for the next turn.

### *Opponents with Multiple Attacks*

The Multiple Attack options were designed mainly to allow PCs to chop through large numbers of cannon-fodder flunkies. When opponents with multiple attacks face each other, a player may make nine or ten attack and defense rolls in a single turn. The GM should use the rules for Initiative (see sidebar, p. 71) to determine the turn sequence. The fighter with the highest Move attacks first, regardless of the number of attacks. Note that a pinned fighter cannot move before the opponent who is pinning him.

# Flying Characters in Combat

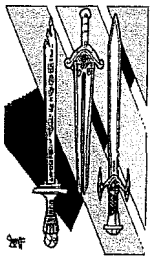
The full rules for combat while flying can be found on p. B139; the rules for dropping objects from a great height can be found on p. B131. Where the rules below differ from those in the *Basic Set*, these rules take precedence:

### *Attacks*

Weapon use is difficult in flight. If a flying being tries to attack with a weapon, he is at an extra 4 to hit. *Double* mis penalty if the character's Flight skill is lower than his DX. This penalty does not apply to *natural* attacks (clawing, biting, etc.) made by members of flying races. Note that the speed of a flying being relative to his target counts into the range/speed total for a ranged weapon attack.

When flying characters use hand weapons against foes on the ground, use the modifications for relative height (p. B123). Weapon reach becomes very important! Do not worry about the relative height of two battling flyers, however.

Flyers often have very high Move scores; realistically, they should probably be able to cover more ground on the *Step* portion of any *Step and. . .* maneuver. To reflect this, use the *Increased Step for High Move* rule on p. 92 for any flyer whose Move is 8 or more.



### *Defenses*

Hying characters use Basic Speed (not flying Move) to calculate Dodge, just like everyone else. However, since they have an extra dimension to move in, they get a flat +2 to Dodge while flying (regardless of the exact nature of the flight). When taking the retreat option on an active defense, a flyer may retreat up to 3 yards, and may retreat *upward* if that would move the character away from the attacker. On the other hand, flying characters also have a -2 to Parry and Block. *Double* this penalty if the character's Flight skill is lower than his DX.

# Swashbuckling Maneuvers

Swashbucklers are famous for flashy maneuvers with ordinary objects. Chandeliers come to mind immediately, as well as clever ploys with tables, chairs, curtains, banisters and rugs.

## *Chandeliers and Other Things to Swing On*

Every tavern and castle dining hall has at least one chandelier, of course. Many chandeliers can be lowered by a rope for ease in lighting and snuffing. Others require long-handled "matches" and snuffers, and are hung by chains.

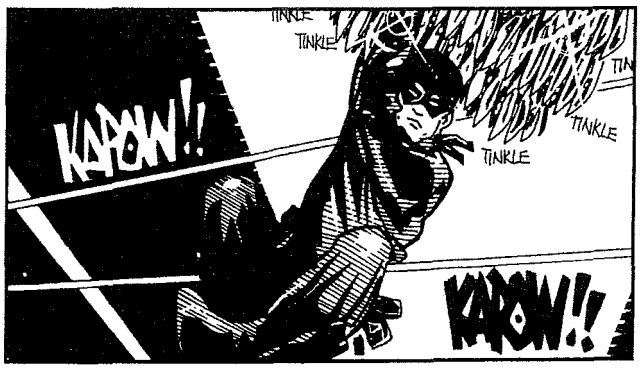
The GM should allow a character an IQ roll to determine whether or not a chandelier will hold him - most heroes automatically check such things out at the first sign of trouble, or even as they enter a room! GMs may assign a likelihood of breaking (1-in-6, 50%, etc.), and roll when the character grabs it.

There are two common types of taverns at TL4-5. The ordinary type has a low ceiling (7 to 9 feet high); the type preferred by Hollywood is a two-story building with the common room extending all the way up to the roof, and balconies all around, leading to the second-story private chambers. The only gaming differences will be in how low the chandelier hangs, plus any balcony action.

In the low-ceilinged taverns, a chandelier hangs down to just over 6 feet above the floor. Such a chandelier can be easily reached while standing on the floor, 1 or 2 hexes away. In fact, it is a distinct hazard to someone fighting on top of a table! These chandeliers won't be very large, but there will be several if me room is good-sized. In a really low-ceilinged room (7 feet), only 1-hex swings are possible.

in a Hollywood-style room, they might hang that low, but are more likely to come down to around 8 feet above the floor, best reached from a table-top. Such rooms often contain large chandeliers, sometimes up to 3 hexes in diameter. Treat any part of the chandelier as being me whole for swinging purposes. If a chandelier is 8 feet above the floor, a character can jump onto it from an adjacent floor hex. One 7-feet high can be reached from up to 2 floor hexes away. Anything higher *must* be reached from a table or raised place. The farthest a character can jump and grab the chandelier without a Jumping roll is 2 horizontal hexes. The GM may allow characters at farther distances to attempt a Jumping roll to reach the chandelier, and then an Acrobatics roll to grab it. The Acrobatics roll in that case is at -2 for each hex over 2 that the character jumps.

The distance away from the chandelier anyone may land is equal to the distance jumped to reach me chandelier +2 - he *must go* at least as far as he jumped to reach the chandelier. The distance he can kick an enemy is equal to the distance he jumped to reach the chandelier +1. He may not grab a chandelier if someone is in the hex beneath the pan he wishes to grab, or between him and that hex.




## Nonhuman Foes

The following are some optional rules for combat with nonhuman (or metahuman) enemies.

### *Vital Points*

When fighting humanoid aliens, vital points are targeted at -1 or more, depending on how different the alien's internal structure is. This modifier also affects skills such as Pressure Points (p. CI144) and Pressure Secrets (p. CI144). Completely alien creatures cannot be hit in vital points unless the character is familiar with their anatomy.

### *Multiple Arms*

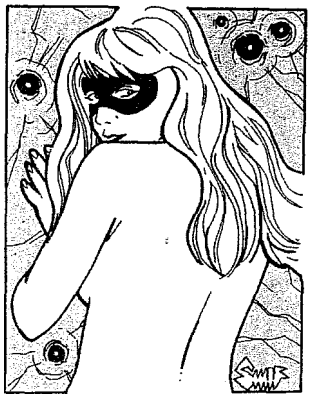
For every arm above two, multilimbed characters get a +2 to all attempts to grapple or pin, or to break tree from a grapple or pin. A six-armed alien wiih Judo-15 would have an effective skill of 23 to grapple (a total of 26 with the +3 bonus) and pin! When attempting an Arm Lock, each additional arm adds +1 to the Judo roll. both to immobilize and to inflict damage.

### *Superhuman Strength*

A fighter with Judo can throw an opponent after a parry, no matter how strong it is (see p. B51), since the martial artist is using the attacker's own strength. However, if a Judo practitioner engages an extremely strong foe using close combat maneuvers that normally require a Quick Contest of ST or DX (see pp. B111-112), he will have more difficulties.

More than strength, *weight* is the determining factor here. A very strong nonhuman creature or superhuman that is no heavier than a human can be affected as easily as a normal. If the creature's weight is within human ranges, use its DX instead. If the creature's weight is greater than 300 lbs. but less than 500 lbs., give it a +1 bonus in the Quick Contest for every 10 points of Strehgth above the human average (+1 for ST 20; +2 for 30, etc.). *Double* this bonus if weight is greater, than 500 lbs. but less than 800 lbs. If the creature weighs more than 800 lbs., use its full Strength.

For a close combat maneuver that does not normally require a Quick Contest, such as a Judo Throw initiated with a grapple as opposed to a parry, read the bonus above as a penalty instead; and apply this penalty to the attacker's Judo skill.



## Silly Combat Rules

The following rules are not just cinematic - they're downright *silly*. They can also be a lot of fun in a cinematic campaign. All of these rules are optional; some will unbalance a serious campaign, so use them at your own risk!

***Bulletproof Nudity:*** PCs can increase PD by undressing. A ragged t-shirt or skintight bodysuit is PD 3, stripped to the waist or skimpy swimwear is PD 5, total nudity is PD 7, Add +1 for female PCs.

***Cinematic Explosions:*** In reality, an anti-tank rocket can blow an unarmored hero into next week. In cinematic combat, the explosive damage (p. B121) from grenades, shells, rockets and the like fired at lightly-armored characters does no direct damage. Instead, it only disarrays clothing, blackens faces, and (most impor-tantly) counts for knockback. For every hex a person is knocked back by an explosion, he should take 1 hit of crushing damage.

***Cinematic Knockback:*** In reality, guns do not cause much knockback at all. In cinematic combat, however, a person with a shotgun or heavy pistol can sometimes knock over and stun a heavily-armored foe, even if his shot didn't penetrate DR. Instead of using the realistic rules for knockback from bullets (p. 58), assess the usual 1 hex of knockback per 8 hits of basic damage, as stated on p. B106. Besides rolling to see if he falls down, a character who suffers knockback must make an IQ roll or be mentally stunned for one turn. The roll is at -2 per hex he was knocked back.

***Exploding Eyeballs:*** In a space campaign. the facts of decompression are ignored in favor of graphic gore. At the smallest pin-prick, NPCs burst into messy clouds-of tomato paste. PCs of course, are tougher, and survive long enough to patch the leak or don spacesuits.

*Continued on page 78 ...*

No real swing is possible by jumping onto a chandelier from directly beneath it, but it would be easier to climb that way.

Chandelier swinging is done at Acrobatics (or DX-6). Only one roll is needed both to swing and land, but a DX-2 or Brawling-2 roll is also needed to kick a character. The player announces his intent ("I will grab the chandelier and swing to this hex") and makes his roll. If the Acrobatics roll is missed, the swing is puny and doesn't go as far as me player intended, unless there was a Jumping roll required to reach the chandelier. In that case, failure on the Acrobatics roll means the character missed the chandelier altogether! Critical failure results in either missing the chandelier completely and falling down, or possibly swinging into a disastrous situation -the GM should be creative!

Anyone may swing on an easily-reached chandelier from 1 hex away to an empty hex directly opposite without a skill roll.

***Ship's rigging:*** *A* sailing ship is designed so that swinging from one part of a ship to another (or from one ship to another) is fairly easy. However, loose lines are never allowed simply to hang free. All loose lines are belayed (secured) in some fashion, and must be freed before they can be swung on. In an impending boarding action, this is done at the last possible minute. Standing too long with a rope in hand makes one a good musket target.

To free a rope from a belaying pin is a simple matter, requiring 2 seconds. A successful Seamanship roll will release it in 1 second - critical failure snarls the rope, meaning it takes 3 seconds to free!

Distances swung on a ship can be fairly large - up to 20 yards, although most swings will be under 10. No Acrobatics roll is required for simply standing and swinging on a rope that is secured forward overhead. However, to land in a particular hex requires an Acrobatics roll, at -1 per hex over 10 hexes traveled. If mat roll is missed, roll randomly to determine which side of the target hex is me miss direction. The distance off-target is the amount the roll was missed by, up to a maximum of the distance between the starting hex and target hex. Use this procedure to determine random swings, rolling against DX-6 if the character does not have Acrobatics. To kick someone still requires a DX-2 or Brawling-2 roll. Damage from a kick while swinging is swing+1.

### *Carpet Yanking*

A carpet may be yanked while a character is standing on it. To yank a carpet, a character must be crouching or kneeling, or standing at a lower elevation (in an orchestra pit, for example). Since crouching can be done as a free action at the beginning of any turn (p. B103), a character may crouch and yank a carpet in a front hex in one action. He can yank up to 25x his ST in pounds. An average carpet weighs about 2 lbs. per square yard. Thus, if there is a heavy table (80 lbs.) and a large man (200 lbs.) on a small carpet, a ST 12 character could yank it without a ST roll. Lesser ST characters would need to use the *extra effort* rules on p. B89. In general, assume that any character can yank a carpet with a single foe on it, but it takes at least a ST 13 character to yank a carpet with two men on it without a ST roll.

A character on a yanked carpet must make a DX-3 roll to keep on his feet - otherwise, he falls down! He moves 1 hex closer to the yanker, whether he keeps his footing or not, as do all furniture, bodies, chests, etc.

### *Shoving and Throwing Furniture*

Tables are shoved into heroes in every swashbuckling movie, and stools are tossed about like confetti. Use the *Throwing* rules on p. B90 for how far a heavy object can be *shoved.* Anything that weighs over 6xST requires two hands to shove. A ST 13 character can shove a large table (80 lbs.) 2 yards without a ST roll. Weaker characters can move it only 1 yard. Use the *Extra Effort* rules on p. B89 to determine ST rolls.

A good-sized table weighs 80 lbs. at TL4-5 and stands just over 2-feet high - treat it as 2 feet. Stools weigh 10 lbs. each and are a foot high: benches are 18 inches high and weigh 50 lbs. Barrels are usually a yard high (some are larger, casks are smaller) and weigh 40 lbs. empty; they are *very* heavy when full.

A character who has a table shoved into him may retreat if he saw the shove and is able to retreat. He may also try an Acrobatics roil at -4 to jump to the top of the table, landing in a crouching position. On a critical success, he can go *over* a 1-yard wide table, if he prefers, and land standing! An Acrobatics roll at -4 will put him safely *under* the table, lying down, if he so desires. If he fails his Acrobatics roll or doesn't retreat for some reason, he must make a DX roll to avoid falling and a HT roll to avoid being stunned. Critical failure on either roll does 1 point of damage.

To actually flip a table over takes both hands and a ST-2 roll. The table lands in the adjacent hexes. A character who sees a table being flipped at him may retreat. Otherwise, he takes 1 crushing damage.

## *Curtains and Wall Hangings*

Wall hangings are *heavy* (20 to 60 lbs.), and most curtains at TL4-5 are too. They are designed to keep drafts out, and some weight is needed for that. They tend to be securely fixed at the top, although the movie variety come down easily.

To pull a curtain or wall hanging down with one hand requires a roll against ST-2. To get it to fall in the adjacent hex then requires a roll against DX-2 - otherwise it falls straight down (not on anyone, unless he was hiding behind it). To accomplish the same thing with two hands requires two rolls, at ST+2 and DX+2, respectively. With successful rolls, the tapestry or curtain can be made to fall on any hex it is adjacent to.

A character who sees it coming may retreat. If unable to retreat, or if his back was turned, he is then enveloped in the curtain. To get out requires 3 turns, during which the character can see nothing outside the curtain. A tapestry or curtain provides PD 1 and DR1, though!

## *Jumping Through Windows*

Of course swashbucklers will want to jump through windows! The GM can allow this with an Acrobatics roll, and may also require a Jumping roll if the window is more than 4 feet off the ground or floor. The character must have at least I movement point left after making contact with the window. Making the Acrobatics roll by 5 or more means that the character ends up in the hex directly on the other side of the window, on his feet and unhurt - nicely done! Making the roll by less than 5 means he takes Id-3 cutting damage, but ends up on his feet as above. A person will usually protect his face as he jumps through a window, so no damage is taken there. Use the DR of the least armored part of the rest of the body to figure damage taken.

If the Acrobatics roll is failed, the jumper takes Id-3 cutting damage *and* he falls down in the 2 hexes directly on the other side of the window. Critical failure means something disastrous - he ends up as for regular failure *and* drops his sword and is stunned, he ends up draped across the windowsill (taking Id-1 cutting damage) or he misses the window entirely and takes damage as if he were thrown against the wall (p. B90), falls down, is stunned, etc. The GM should choose whichever option is most embarrassing for the character at the time!

Going through a window ends a character's turn - no farther movement or action is possible.

Incidently, TL4 glass is somewhat more opaque than modern glass. Treat this as -3 to any Vision rolls for casual observation through a window. Intense peering through such glass *will* reveal whatever there is to see at no penalty, but it will take three times as long to see anything as through TL6+ glass. Many places deliberately have *very* opaque glass - nothing but silhouettes can be seen through such windows.

## Silly Combat Rules (Continued)

***Firecrackers and Hand-held Nukes:*** Grenades come in two varieties; one is avail-able only to friendly forces and one to opposing forces. Opposing-force grenades make noise and smoke, but do only sartorial damage (which improves the defense of PCs; see *Bulletproof Nudity*. above). Friendly-force grenades are devastating but selective; they will destroy a main battle tank but never damage the thrower, even if he drops one on his toe. Friendly-force grenades become opposing-force grenades if used by opposing forces and vice versa.

***Gun Control Law:*** The enemy will rarely use guns. When they possess them at all, they will threaten the PCs with them and will never defend against attacks meant to knock firearms away. Most of the time, the bad guys will only use melee weapons.

***Hollywood Automatic Weapons:*** Opposing forces never get to use the *Aiming Successive Groups* rule (p. B121) and all burst fire counts as a snap shot, never getting an Accuracy bonus. *Imperial Stormtrooper Marksmanship Academy:* If the Gun Control Law (above) is broken, the bad guys never hit with the first shot or burst of automatic fire. This always lands close enough to the PC that he is aware that he is under fire, but never does damage.

***Infinite Ammunition:*** PCs always have spare ammunition or power cells; if they shoot up all they are carrying, they immediateiy find more. They are not required to wear web gear, or even stick spare magazines in their pockets; when they need it, it's there. Their weapons only run dry during a pause in the action or they are allowed to reload off camera. Related to this is infinite functionality; their weapons never misfire, fail to feed or stop working.

***Larger Than Life:*** The optional Stun rules (p. 151) to the PCs (and select NPCs) but not to most normal mortals (including cannon-fodder attackers). In effect, this gives the heroes 60 or more hit points against their enemies' 10 or so - sounds like old roleplaying times, doesn't it?

***Martial Artists Anonymous:*** Every NPC the characters encounter - from the local greengrocer to the shoeshine boy - will have Karate and Judo at 16+, and will be itching to use them, both for and against the PCs. Any attack will be heralded by loud kiais. Every few minutes the party will hear shouting and loud thumps, as of falling bodies; if they investigate, they will find a routine domestic disturbance being settled by kicks and chops.

***Martial Arts Etiquette:*** If a PC uses Karate or Judo, his opponents will always face him one-on-one. Unengaged NPCs can dance around the fight uttering shrill cries of encouragement, but none will engage until his predecessor has been disposed of.

### *Banisters*

Sliding down a banister is *a fast* way to get down stairs. Assume a person can travel at a speed of 5 (15 feet per second)! Since travel on stairs is ordinarily at half speed, this is quite speedy. Someone may travel more slowly than that, squeezing with his legs as a brake. Unfortunately, banister sliding is not easy to do...

*Each second* that a traveler slides down a banister, he must make a DX-6 or Acrobatics-6 roll. A failed roll means he is no longer sliding. A miss by up to 4 merely means he ends his move on the steps, on his feet. The more he misses the roll by, the less distance he travels before slipping off the railing. Missing by more than 4 results in falling down the stairs. Treat it as regular falling damage, p. B131 -Acrobatics does *not* reduce damage by 5 yards in this case. Critical failure means he falls on the *wrong* side of the banister!

The person sliding may attempt to attack any one opponent that he passes on his descent. This is treated as a Wild Swing, p. B105. Anyone who chooses the Wait maneuver may attack him as he goes by (but cannon-fodder NPCs wouldn't think to Wait, of course). Roll for damage normally in each case, but add 1 to any damage done if moving 4 or 5 hexes per second.

***Warning:*** If there is a finial on the banister and the adventurer does nothing to remove it first, the character takes 2d damage to a very sensitive pan of his anatomy!

### *Balconies and Other Climbable Objects*

Most climbing modifiers can be figured out by referring to p. B89. The GM may allow generous bonuses to a Climbing roll, or reduced time, if the character makes a successful Acrobatics roll. Likewise, jumping from balconies to chandeliers is easily possible for most swashbucklers - allow a good Acrobatics roll to swing the PC to any reasonable spot.

Let a character get a handhold on a high balcony or other object with a Jumping roll - see p. B88 for distances. Allow him a ST roll to pull himself up quickly, and an Acrobatics roll to vault over (the railing in 1 second instead of climbing over it in 2 or 3. Failure at any of these rolls merely means the PC needs to take an extra second or two to accomplish the task - only critical failure means disaster. In general, allow swashbuckling PCs to climb faster than the times given if they make good rolls.

### *Throwing Items in the Face*

What is mere to throw? Drinks are popular, as are hats and candelabra. It takes an action to ready such an item ("I ready the beer," needs to be clarified - to drink or to throw?). Grabbing an item from a table doesn't require a DX roll, unless the character is also trying to Fast-Draw a weapon or perform a similar action in the same turn.

Tossing a beer in the face is treated as tossing anything else. A DX-3 or Throwing roll is needed to hit, with any modifiers for an unaimed shot, the offhand. etc., and a -5 to target the face. Treat the SS number (see p. B115) for such impro-vised weapons as 10. Ace is 1, Max is 3 and 1/2D does not apply. Heavier items are covered on p. B90. Thrown items may be dodged or blocked; a cloak can be used to block in this case. Such small items can be parried at -2, except for liquids or *very* tiny objects.

If a non-harmful substance hits someone in the face, a Will roll is required to avoid flinching. A failed roll means a flinch. The victim is -2 to any further defenses that turn, and -2 to any DX roll or sense roll the next turn. Critical failure means the eyes are hit. The defender is blinded for Id seconds (the GM rolls secretly). A successful roll means the individual doesn't flinch - no game effect, unless he has Bad Temper.

The GM may rule that an Alcoholic character may be distracted from the battle (make an IQ roll), should he be doused with spirits...

### *Fast-Talk During Battle*

During a fight, a swashbuckler may attempt to Fast-Talk his opponent into letting down his guard in some way - especially useful against many enemies at once. Although talking counts as a free action, to be convincing, the Fast-Talker really has to look as if he is seeing a rabid, frothing dog charging down at the group as he shouts, "Look out, mad dog!" This means he is at -2 to any physical action and defense until his next turn - this can be a risky maneuver. Roll a Quick Contest between the character's Fast-Talk or Acting and each of the opponents' IQ The GM may allow a bonus to a deceitful PC's skill if the player comes up with a truly plausible diversion.

If the Fast-Talker *wins* the Quick Contest, the losing character is considered mentally stunned (see p. B127) for 1 turn only - he may make no action and his defense is at -4. He has turned his head, checked his shoelaces, or whatever. Critical failure by the duped party or critical success by the liar is treated like *total surprise* - see p. B122. The deceiver may then make any legal action that turn, but any DX-based maneuver is at -2.

If the other character ties or wins the Quick Contest, he gets his normal action on his turn - he's not taking his eyes off his man, even if there *is* a mad dog chargino down on him!

## Sweeping Counter Parry

The sweeping counter parry is for situations where a highly-skilled fighter needs to brush aside a large number of minor foes in order to pursue goals more worthy of his mettle. It is risky, but then being a swashbuckler isn't the world's safest occupation, anyway.

The basic idea of the sweeping counter parry is to make multiple foes' weapons unready on their own turn. This allows you a free action, such as turning in place and moving rapidly away. They can either step and ready their weapons, or they can sprint after you with unready weapons. The former allows you a good head start. The latter allows you to swivel back towards them with sword in hand and grin on face ready to punish your foolish, unready enemy

To perform the sweeping counter parry, the character must take the All-Out Defense maneuver on his turn. However, the usual All-Out Defense rules are not followed. Instead, the fighter announces his intention to sweep all of his foes' blades out of line (making them unready). This may be done against a single individual, of course, but is more useful when facing two or more foes.

This is handled as a number of simultaneous Quick Contests of Skill Each foe makes a skill roll, and the All-Out Defending combatant makes a single skill roll. This roll is not against his parry, but against his fall weapon skill. However, it is at -2 for each foe beyond the first. That is, if he is facing three swordsmen, he rolls at weapon skill-4

The parrying fighter rolls only once. (He's only making one maneuver: an all-encompassing sweep of his blade that is attempting to catch *all of* the foes' blades and throw them severely out of line - at least 90°.) His roll is compared one after the other to each of his foes' rolls. If he wins a Quick Contest, that foe's weapon is unready. If he ties, he takes no damage from his opponent's attack, but the foe's weapon is still ready. If he loses a Quick Contest he takes normal damage from that attack, and the weapon that hit him is still ready.

Any critical failure means a dropped weapon. A critical success by an attacker is handled normally. A critical success by the defender means that *all of* the foes' weapons are automatically unready *and* they are mentally stunned for 1 turn by the brilliance of the maneuver!

The sweeping counter parry is a cinematic maneuver suitable for swashbuckling games. Even if the GM allows such a maneuver, it may be wise to limit it to fencing weapons.