## CHAPTER 7: COMBAT AND MOVEMENT

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## Combat

Most rules in $d 20$ conveniently scale up, which makes it great for playing a superhero game, where everything is scaled up. However, when it comes to combat, there are a few things that need attending to in that scaling, so here they are, superhero combat rules (you know you've been waiting for this section!). The combat rules are in alphabetical order: Building Damage, Damage Reduction, Knockback, Non-Lethal Damage, Super Attacks, and Super Strength.

But before we get to that, a word about violence and the modern world. It's easy to forget that in the kind of world where superheroes operate, most people aren't particularly accustomed to violence. When someone starts shooting, or crashes through a brick wall, most people are going to scream and run. You're different, of course. You run towards the smashing glass and gunfire, but that's part of what makes you a hero. Likewise, even those who might put themselves in the middle of violence, like street criminals, are only rarely capable of actually killing anyone. Beat them up, maybe, but not kill. The reason that most people do only non-lethal damage in combat is because they hold back, not just because they're not trained to do real damage.

So as a superhero, it's partly up to you to judge when to use lethal and non-lethal force. There are no rules against lethal force, of course, and your gaming group will decide on the kind of atmosphere of violence that you're comfortable with. Combat is a big part of role-playing games, and we wouldn't dream of removing it.

But the superhero genre is distinctly different than other RPG genres, like fantasy or espionage or war. Superheroes constantly have to work around innocent bystanders and pull their punches with street thugs. It's part of the genre that your characters will be so powerful that they have to pull their punches with regular humans in order to avoid killing them. You and your gaming group will have to decide how much of
that kind of thing is expected in your game world, and how much the police, the government, and the public will be comfortable with heroes who actually kill the bad guys. As always, it's ultimately up to you, but it is something to think about.

## Building Damage

You can do damage to a building by simply attacking it. It's hard to miss a building, but your GM might insist on an attack roll under special circumstances (e.g., you're falling through the air, you've been drugged, etc.).

Buildings have Hardness ratings based on what they're made of (wood, stone, steel, concrete, etc.), and they take only $1 / 4$ damage from piercing or ballistic attacks. Buildings are unaffected by non-lethal damage and are not vulnerable to critical hits or sneak attacks, but the Demolitions skills and Craft Structural do grant damage multipliers when attacking buildings (see Chapter 2: "Skills"). If you manage to do sufficient damage to a building, you can trigger a Fortitude save. GMs should exercise their judgement when it comes to damaging parts of a building that are purely decorative or do not bare any weight. Smashing a building's windows will not ever bring it down, for example, nor will tearing off all the gargoyles.

If your ranged attacks miss someone who is standing in front of a building, then the attack strikes the building. If you are knocked back into a building, it can take cascading damage. If you and your opponent are both standing adjacent to a building and either of you misses with a mêlée attack, then that attack has a $50 \%$ chance of striking the building. Finally, if the reach of your mêlée attacks overlaps with a building and you miss someone who is standing adjacent to or in front of a building, then your attack has a $50 \%$ chance of hitting the building. You can avoid hitting buildings for with the feat Precise Strike (see Chapter 4: Feats). Ranged damage,

Table 7-1 Building Stats

| Building Type | Failure <br> Threshold | Fortitude <br> Bonus | Debris Damage <br> (per floor) |
| :--- | :---: | :---: | :---: |
| Fortified: Bunker, Vault | 150 | +10 | 14 d 6 |
| Sturdy: Bank, Headquarters, Library, Military Structure | 130 | +10 | 12 d 6 |
| Underground: Subway Station, Sewer | 100 | +5 | 10 d 6 |
| Institutional: Government Building, High School, Hospital | 80 | +4 | 8 d 6 |
| Decorative: Temple (any), Museum | 70 | +2 | 8 d 6 |
| Urban: Apartment, Office Tower, High-rise | 70 | +4 | 7 d 6 |
| Industrial: Factory, Warehouse | 60 | +2 | 7 d 6 |
| Large Residential: Mansion, Dormitory | 50 | +2 | 6 d 6 |
| Small Residential: One- or Two-Story House | 40 | +2 | 5d6 |
| Commercial: Barber/Salon, Boutique, Coffee Shop, Corner Store | 25 | +0 | 4 d 6 |
| Temporary: Portable, Trailer |  | +0 | 3d6 |

however, is unavoidable. Buildings can take damage two ways: by floor or as a whole.

Building Damage by Floor

Average HPs per floor of various kinds of buildings are indicated on the table below. A two-floor house, for example, has 100 HPs. A building with a larger area can have more HPs, at the GM's discretion. Buildings can also have Hardness, as indicated by what they're made of (wood, stone, steel, etc.).

When a single floor's HPs are reduced to zero, then that floor collapses. If you are inside the building and on a floor that collapses, you take Debris Damage (see Table 7-1). You get a Reflex save for half that damage (DC 15). If you are within a five-foot step of an exit (door, window, etc.) that takes you out of the building entirely, passing the Reflex save indicates that you leapt out of the building, so you take no damage at all.

If you are on a floor other than the top and a higher floor falls on you, then your Reflex save also indicates whether you are pinned in the rubble. If you fail, you're pinned. For every round that you're pinned, you take 1d6 non-lethal damage. If you are rendered unconscious by this non-lethal damage, you must make a DC 15 Constitution check or start taking 1d6 damage per round. If you die, then at least you're already buried.

If you have Improved Evasion and save for no damage, then you managed to find a pocket in the debris. If you are under more than one floor of a building, you have enough breathable air for about 4 hours (see suffocation rules).

When a floor collapses, it and all the floors above it, if any, come crashing down on the floor below. Thus the Debris Damage of all the falling floors is applied to the floor below the collapsed floor.

> Building Damage as a Whole

When a building takes damage as a whole, it has several Failure Thresholds. Every time the HPs are reduced by the equivalent of one floor's worth of HPs, the building has to roll a Fortitude save (DC 5, Table 7-1 for Fort bonuses). If the building fails this check, the whole building falls. The DC
for the Fortitude save increases by +2 every time the building has to make this check.

Damage Reduction

Standard DR in Phoenix blocks mundane physical damage only. It does not block energy damage or Super attacks (which includes any attack with an Origin and any attack made with an Ability Score of 25 or more), all spells, psi-powers, and super powers, including those generated by items and devices. DR scores are written as three terms: what the DR blocks, the amount of reduction, and what the DR is vulnerable to. For example, "DR 10 / Super" is standard DR, as described above. A score of "mystical DR 15 / Super" blocks mystical damage up to 15 HPs per attack, but is vulnerable to all other Super attacks. Finally, a score of "supertech 12 / ballistic" indicates that the DR blocks attacks with a supertech Origin, but is vulnerable to bullets. Some DR has multiple vulnerabilities or multiple protection types. For example, "supertech, cosmic 10 / wood, slashing" indicates that the DR blocks supertech and cosmic attacks, but is vulnerable to wooden or slashing weapons. Adhering precisely to this notation formula is not as important as being very clear in your notes about what your DR does or doesn't protect you from.

## Knockback

Knockback happens when you get hit by some big and blunt and sends you flying instead of just doing damage to you.
Knockbacks are generally involuntary. A blunt attack made by someone with Super Strength and which does damage equal to or less than your Knockback Threshold provokes Knockback.

Your Knockback Threshold is $\mathbf{1 0}$ + Strength modifier + Fortitude save. GMs might rule that a slashing attack with a particularly large weapon, like an over-sized axe, might provoke Knockback. If the damage of the attack meets or exceeds your Knockback Threshold, then you are Knocked Back.

If you are Knocked Back, you take damage normally, but you are also thrown directly away from your attacker for a
number of squares equal to ${ }^{1 / 10}{ }^{\text {th }}$ the damage of the attack (i.e., half the damage, in feet). If the damage is less than 10 , then you are only Knocked Back within your square. If you have DR, then take that amount off of the damage before you calculate your Knockback distance. You incur attacks of opportunity while you sail through the air in this manner. You land prone at the appropriate distance, unless you roll a Reflex save, DC 15, in which case you land on your feet, or kip up, or something equally cool.

People who are larger than Medium get an effective +4 size bonus to damage, but only for the purposes of calculating Knockback, and their Knockback Threshold is also +4. People who are smaller than Medium get a corresponding -4 size penalty to effective damage and to their Knockback Threshold. GMs can also rule that if the weapon itself is bigger than a Medium-sized person, then it might grant a +4 to effective damage.

If you pass through someone else's square when you're Knocked Back, they must roll a Reflex Save (DC 15) to avoid being hit by you. If they fail, you slam into them and you roll 1 d 6 for every square you had left to travel. The two of you split that damage and must make another Reflex save (DC 15) to avoid end up on the ground, prone (as above). This is called Cascading Knockback. A GM who likes math could have you continue to cause Knockback as you fly through the air, but it's a lot of finicky numbers and there are only so many hours in the day. If you simply hit a wall or other fixed object during your Knockback, don't bother with the first Reflex save. You and the wall share the damage. Don't forget that the wall could have Hardness.

If you're in the air, and you get Knocked Back, different things happen. Halve the distance if you are Knocked Back from below. Double the distance if you are Knocked Back from above. Don't change it if you are Knocked Back laterally. If you can fly or otherwise control your position in space, then you can halve the distance you are Knocked Back.

## Non-Lethal Damage

Some attacks and effects are so superficial that, though they can knock you on your ass, they don't have any permanent effects. This is non-level damage. In Phoenix, unarmed strikes made by people without the proper training (i.e., the Combat Martial Arts feat) or without super-strength, both cause nonlethal damage. Some weapons and powers are specifically designed to do only non-lethal damage. Some other things, like heat or exhaustion, can cause non-lethal damage as well. Specific things that cause non-lethal damage will say so in their descriptions.

When you take non-lethal damage, it does not reduce your Hit Points. Instead, subtract real damage from your total HPs, and and keep a running total of your non-lethal damage. When your non-lethal damage equals your current HP total, you become staggered, and when it exceeds your current HPs, you fall unconscious. This can happen either as a result of either taking so much non-lethal damage that it's more than your
current HP total, or having your HPs reduced to below your current non-lethal damage.

## Melee Attacks and Non-Lethal Damage

You can choose to do non-lethal damage with a mêlée weapon that normally deals lethal damage, including unarmed strikes, but you take a -4 penalty to attack. This means that you attack with the "flat of the blade" or otherwise pull your punches. The feat Merciful Mauler can eliminate this penalty in most circumstances (see Chapter 4). You can also do lethal damage with non-lethal weapons, including unarmed strikes, but you again take a -4 penalty to attack.

## Combat Manoeuvres

## Sunder and Disarm

These manoeuvres is not different in Phoenix, but we think it's important to remember all the things you can do with them other than just destroying someone's weapon or taking it away. Never forget that you can target items that someone is holding or wearing, so you can snatch a mobile phone or slash someone's belt off, for example. Superheroes do this kind of thing all the time. So do gunslingers (shooting things out of people's hands) and swashbucklers (slicing off clothing), and superheroes are damn closely related to both. You can also snatch away the detonator for the C4 that's been planted on the city dam, or you can smash the bottle of mystic potion that a villain drinks to gain her powers. Attacking the enemy and doing damage directly is not your only option. Destroying and/or taking props away can often resolve a fight.

## Stapling

Stapling is when you pin someone to a wall or other surface by their clothes using a piercing weapon or a projectile that is more than a few inches long (i.e., arrow, bolt, throwing knife, etc.). The target must be wearing clothes that reasonably have some spare cloth to pin (i.e., no skin tights or form-fitting armour), and they must be standing in front of and adjacent to a surface that your weapon can pierce. To perform the Staple, you must be either in mêlée range or, with a projectile, within one range increment/30 feet (whichever is less), and you must hit the target's Touch AC. If you succeed, the target is Stapled to the wall or surface and has to either take a move action to remove the weapon that's Stapled them, or they can rip their clothes as a swift action, but they must make a DC 10 Strength check to free themselves. GMs might raise the DC of the Strength check if the clothing in question is particularly tough, like a biker jacket. Increase the DC of the Strength check by +2 for every additional staple. For example, if you use three attacks to throw three daggers at a target and Staple her to a wall, the Strength DC is 16 . See the feat "Improved Stapling" for more options with this combat manoeuvre.

## Swinging Attacks

You can attack as part of a swing action (see below, "Swinging"). All the swinging rules apply normally. You cannot make attacks with two-handed weapons because to wield them, you'd need to take your hands off the rope (unless you have more than two hands, of course), but you can make unarmed strikes with your free hand or your feet/legs. To perform a Swing Attack, first, you must take a move action and make a Tumble check to place yourself adjacent to the target. Second, you must take a standard action to kick the snot out of him (i.e., roll to hit, etc.). After your attack, you are still on the rope, but you can drop to the ground as a free action. By the rules as written, this swing, Tumble, and attack are three separate, distinct actions, but you're of course free to say that you swing up to your target, performed a mid-air somersault and catch him under the chin with your heel before hitting the ground like a cat. Even the most mundane attack can be enhanced through description.

You can also Spring Attack while swinging to strike your target in mid-swing. However, this incurs a -4 circumstance penalty to your Tumble check. If you fail the check, you can't get yourself to within mêlée range of your target.

Finally, you can make a Swinging Charge. You get the standard -2 Defence and +2 to hit for a Charge, but you don't
have to move in a straight line. Instead, your movement is determined by the arc of your swing.

## Generic Firearms

The superhero genre is not overly preoccupied with firearms. They're a little too bland, not colourful or flashy enough in a world of heat vision and web shooters. Therefore, instead of the published material on firearms in d20, which attempts to somewhat accurately represent the products created by the modern firearms industry, Phoenix uses generic firearms that are more akin to fantasy games in which you buy a "long sword" or a "great axe," instead of a particular long sword created by a specific manufacturer, or a specific great axe made by a particular designer. Table 7-2, below, lists an array of generic firearms. In brackets, after the generic name, is an example of the kind of gun that is included in the general category. For example, you can purchase a submachine gun can call it an Uzi, an MP5, or whatever you like. You can buy a heavy revolver and call it a Smith and Wesson . 44 or a Colt Python, etc. Ultimately, the numbers are there to support your own creativity, not over-ride it with real-world details.

You are, of course, free to use the makes and models of firearms in the standard d20 rules, just don't mix and match

Table 7-2 Generic Firearms

| Handguns | Damage | Range Increment | Rate of Fire | Ammo <br> Capacity | $\begin{gathered} \text { Ammo } \\ \text { Type } \end{gathered}$ | Size | Weight | PDC | Restriction |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Derringer (e.g., Baby Browning .22) | 2d4 | 10 ft . | Single | 2 int | P1 | tiny | 1 lb . | 14 | Lic +1 |
| Revolver, Light (e.g., Pathfinder .22) | 2 d 4 | 20 ft . | S | 6 cyl | P1 | small | 1 lb . | 13 | Lic +1 |
| Revolver, Medium (e.g., Ruger Service Six ) | 2d6 | 30 ft . | S | 6 cyl | P2 | small | 2 lb . | 14 | Lic +1 |
| Revolver, Heavy (e.g., Smith \& Wesson .44) | 2 d 8 | 40 ft . | S | 6 cyl | P3 | med | 3 lb . | 15 | Lic +1 |
| Autoloader, Light (e.g., Walther PPK) | 2d4 | 20 ft . | S | 10 box | P1 | small | 1 lb . | 15 | Lic +1 |
| Autoloader, Medium (e.g., Glock 17) | 2d6 | 30 ft . | S | 10 box | P2 | small | 3 lb . | 16 | Lic +1 |
| Autoloader, Heavy (e.g., Desert Eagle) | 2d8 | 40 ft . | S | 10 box | P3 | med | 4 lb . | 17 | Lic +1 |
| Machine Pistol, Light (e.g., Skorpion) | 2d4 | 30 ft . | S, A | 20 box | P1 | small | 4 lb . | 17 | Res +2 |
| Machine Pistol, Heavy (e.g., Barretta 93R) | 2d6 | 40 ft . | S, A | 20 box | P2 | med | 3 lb . | 18 | Res +2 |
| Longarms |  |  |  |  |  |  |  |  |  |
| Rifle, Light (e.g., Remington 700) | 2d8 | 90 ft . | S | 6 int | L1 | large | 8 lb . | 14 | Lic +1 |
| Rifle, Medium (e.g., HK PSG1) | 2 d 10 | 90 ft . | S | 6 box | L2 | large | 16 lb . | 22 | Lic +1 |
| Rifle, Heavy (e.g., Barrett Light Fifty) | 2d12 | 120 ft . | S | 12 box | L3 | huge | 35 lb . | 24 | Lic +1 |
| Shotgun, Bean-Bag | 2d8 NL | 20 ft . | S | 4 int | B | large | 10 lb . | 16 | Lic +1 |
| Shotgun, Sawed-Off | 2d8 | 10 ft . | S | 2 int | Sl | med | 4 lb . | 15 | Ill +4 |
| Shotgun, Autoloader | 2d8 | 30 ft . | S | 6 box | Sl | large | 8 lb . | 16 | Lic +1 |
| Shotgun, Double-Barrel | 2 d 8 | 30 ft . | S | 2 int | Sl | large | 8 lb . | 15 | Lic +1 |
| Shotgun, Heavy | 2 d 10 | 30 ft . | S | 6 int | S2 | large | 11 lb . | 17 | Lic +1 |
| Submachine Gun (e.g., HK MP5, Uzi) | 2d6 | 50 ft . | S, A | 30 box | P2 | large | 7 lb . | 18 | Res +2 |
| Assault Rifle (e.g., AK-47) | 2d8 | 80 ft . | S, A | 30 box | L1 | large | 9 lb . | 18 | Res +2 |
| Exotic Firearms |  |  |  |  |  |  |  |  |  |
| Machine Gun, Light (e.g., FN Minimi) | 2 d 8 | 80 ft . | S, A | 30 box | L1 | large | 12 lb . | 19 | Res +2 |
| Machine Gun, Medium (e.g., M60) | 2d10 | 100 ft . | A | linked | L2 | huge | 22 lb . | 21 | Res +2 |
| Machine Gun, Heavy (e.g., M2HB) | 2d12 | 120 ft . | A | linked | L3 | huge | 75 lb . | 22 | Mil +3 |
| Rocket Launcher (e.g., M72A3 LAW) | 10d6 | 150 ft . | 1 | 1 int | special | large | 5 lb . | 15 | Mil +3 |
| Grenade Launcher (e.g., M79) | - | 70 ft . | 1 | 1 int | special | large | 7 lb . | 14 | Mil +3 |

generic firearms with brand-name firearms. The two systems are not compatible.

## Firearm Types

Handguns are firearms that you can fire comfortably with one hand, although using two hands is traditional. All handguns use P-type ammo.

- Derringers are very small pistols with only two bullets loaded internally. They're extremely easy to hide.
- Revolvers have a central barrel that rotates each fresh bullet into place. They either break at the top via a hinge just in front of the trigger, or the barrel swings out to the side. Revolvers usually have 6 chambers for bullets, but you can upgrade them to 9 or 12 .
- Autoloaders take box ammo that loads the handle. You reload them by simply replacing the magazine. Autoloaders use P-type ammo.
- Machine Pistols are essentially the same as autoloaders, but they can switch between semi-auto and fully-automatic fire.

Longarms are firearms that you can fire comfortably with both hands. You can fire them with one hand, but you take a -4 penalty. This isn't very realistic, but neither are superheroes. All longarms use L-type ammo, except Submachine Guns which use P-type.

- Rifles have long barrels and fire single shots at a time. They are either internally loaded or take box ammo. Rifles use L-type ammo.
- Shot Guns are basically the same a rifles, but they can fire rounds of shot (tiny steel balls) instead of bullets. The Double-Barrel Shotgun is an old favourite, and is "semiautomatic" because you can fire each barrel in rapid succession. The Sawed-Off Shotgun is usually illegal, but makes for a weapon that is easier to conceal, although it also drastically reduces the gun's range. Shotguns use Stype ammo.
- Submachine Guns are mid-way between machine pistols and machine guns. They have fully-auto fire, and they require two hands to fire, but they use pistol rounds ( $\mathrm{P}-$ type ammo).
- Assault Rifles are fully-automatic, require two-hands to fire properly, but are light enough that one person can operate them. Assault rifles use L-type ammo.

Exotic firearms are weapons that require special training or finicky operation. Machine guns fall into this category because they are belt-fed and generally only used in military situations. Rocket and grenade launchers are exotic because they simply do not operate or fire like other firearms.

- Machine Guns are fully-automatic rifles that are so heavy that they must be mounted to fire properly. If you are strong enough to lift one, you can attempt to fire a machine gun two-handed, but you take a -4 penalty to hit. If you are strong enough to life a machine gun with one hand, you can attempt to fire it one-handed, but you take a -8 penalty to hit. Machine guns use L-type Ammo.
- Rocket Launchers literally launch self-propelled rockets. They're basically light plastic or fibre-glass tubes you can aim with. They are single-use items. The rocket destroys them after if fires. Rocket launchers use specialised, self-propelled rocket ammo.
- Grenade Launchers shoot special grenades that are shaped like large bullets (see d20 rules for the kinds of grenades you can load into a Grenade Launcher). These simple weapons simply help you to get the grenade to a target. All other rules regarding attacking with grenades apply.


## Rates of Fire

"1" means you must reload the weapon every time you fire it. It takes one round of ammunition at a time. "Single" means it requires manual action (i.e., cock the hammer, pull the bolt, etc.). "S" designates a semi-automatic weapon (it automatically loads the next bullet, usually through a slide, a spring-loaded magazine, or what have you). "A" indicates a fully-automatic firearm (it auto-loads and fires bursts of bullets). Finally, "S, A" means that the weapon can switch from semi-automatic to fullyautomatic as a free action.

## Ammo Capacity

Each gun has a maximum number of bullets it can carry, and a mechanical means to carry them. "Internal" firearms keep their bullets in the body of the weapon. "Cylinder" firearms keep their bullets in a rotating barrel. "Box" firearms keep their bullets in a pre-loaded magazine. Finally, "Linked" firearms take bullets that are linked to each other by small metal clips of 50 at a time.

Reloading a box firearm or a cylinder firearm with a speed loader (a device that holds the bullets and slips them all in the barrel at once) takes a move action. Reloading the individual bullets into a cylinder or into an Internal firearm takes a fullround action. You can link two belts of linked ammunition to each other as a move action, and thus maintain uninterrupted fire.

| Table 7-3 Generic Ammunition |  |  |  |
| :---: | :---: | :---: | :---: |
| Type/Weight | Amount | Damage | PDC |
| Pistol 1 | 50 | 2 d 4 | 4 |
| Pistol 2 | 50 | 2 d 6 | 5 |
| Pistol 3 | 50 | 2 d 8 | 6 |
| Rubber | 50 | 2 d 6 NL | 5 |
| Longarm 1 | 20 | 2 d 8 | 4 |
| Longarm 2 | 20 | 2 d 10 | 5 |
| Longarm 3 | 20 | 2 d 12 | 6 |
| Shot 1 | 10 | 2 d 8 | 4 |
| Shot 2 | 10 | 2 d 10 | 5 |
| Bean-Bag | 10 | 2 d 8 NL | 4 |

## Ammo Type

## Modifying Generic Firearms

Ammunition breaks down into three types. The types are "P" for "pistol," "L" for "longarm," and "Sh" for "shot." Each of those types has three weights $(1,2$, and 3 ) which correspond to the three levels of damage that that weapon does. Therefore, all pistols and submachine guns that do 2d6 damage take P2 ammunition. All longarms that do 2 d 8 damage take L1 ammunition.

Shot are small containers of pellets, so when they fire, the pellets spread out in a wider area, but do less damage individually. As a result, it does -1 HPs for every range increment between the firer and the target.

There are also two kinds of non-lethal rounds, Rubber bullets and Bean-Bag rounds. Rubber bullets (and variations thereon) have also been made of wood, wax, and most recently plastic. We use "rubber" as a generic term for any handgun round that's designed to be, as it were, less-than-lethal. You can purchase rubber bullets for any firearm that takes P-type ammo, and they do 2 d 6 non-lethal damage, except on a critical hit, in which case they do 2 d 6 lethal damage.

Bean-Bag rounds are small pouches filled with lead balls. You must buy a special kind of Shotgun to fire Bean-Bag rounds, however, and they follow the same rules about lethality as plastic rounds: 2 d 8 non-lethal, except on a critical hit, in which case they inflict 2 d 8 lethal.

The size of firearms dictates how you grip them and who can comfortably do so. If you are the same size as your weapon, you can use that weapon in one hand. If the weapon is one size larger than you, then you need two hands. If the weapon is two sizes larger than you, then you need to either set the weapon on the ground to fire it, or use a mount (like a bipod).

You can try to use a weapon that's a size too large for you in one hand (i.e., a medium-sized person with a large-sized firearm), but you take a -4 penalty to attack. You can also try to use a weapon that's two sizes too large in two hands (i.e., a medium-sized person holding a huge-sized weapon), but again, you take a - 4 to attack. Finally, you can try to use a weapon two sizes too large for you in one hand (i.e., a medium-sized person with a huge weapon), but you take a -8 penalty to attack.

With weapons that require a mount, you must take a fullround action to set the weapon in place, either flipping up a mount and positing the barrel, or lying down and firing the gun from a prone position.

## Restriction

The restriction of a firearm refers to just how easy/legal it is to get your hands on. The modifiers in Table 7-2adjust the PDC of a weapon when you attempt to purchase it off of the Black Market. Bare in mind, however, that these restrictions refer to the United States, which has relatively lax gun laws compared to other Western nations. If your game is set in a nation with more strict gun laws, add +1 to all of the Restrictions.

You can also modify your guns, having them customised or doing it yourself, or just buying superior quality.

## Mastercraft

These weapons gain a +1 Mastercraft bonus to attack and damage. Mastercraft weapons increase the PDC by +3 .

## Range

You can increase the range of your firearms by having the barrel elongated, for example. Pay +1 PDC to increase the range increments by +10 ft .. The maximum range increment for a handgun is 60 ft .. The maximum range increment for a longarm is 150 ft ..

## Damage

You can increase the damage of your firearms by purchasing special bullets that either explode on impact (concussive), or flatten (slashing/piercing), or burn (heat/fire). Extra-damage ammo costs +1 PDC and increase the damage by +2 HPs. When you purchase the ammo, you must specify if the extra damage is concussive, heat-based, or slashing/piercing.

## Ammo Capacity

You can purchase custom-made magazines or larger-thannormal revolvers that can carry more bullets than the off-theshelf version listed on Table 7-2. Pay +1 PDC to increase the number of bullets by $50 \%$ (which also increases weight by $25 \%$ ), and pay +2 PDC for ammo to increase capacity by $100 \%$ (and weight by $50 \%$ ).

## Body Armour

In addition to the protective gear listed in the SRDs, you can also purchase inserts (which slip under or into your clothing), helmets (which protect your head and face), and plates (which fit over your clothing), and thus offer you additional protection from physical injury. Some Body Armour is just re-purposed sporting goods (usually the plastic kind), but the rest is either military- or law-enforcement-grade gear that you purchase through surplus stores, mail-order, or have custom-made. In any event, the PDCs are as listed, and although it's a little weird for someone in the modern world to buy what amounts to armour, it's by no means illegal, thus there is no restriction modifier to your purchase DC.

## Inserts

Inserts are small disks of plastic, ceramics, or metal that you affix to your clothing. The individual disks be very small and affixed to a mesh that is then sewn into clothing, or they can be larger and fit, individually, into special pockets. Meshes are flexible but more delicate, large disks are less flexible but more robust. For game purposes, there's no difference between the two.

| Table 7-4 Body Armour | Equipment Bonus | Non-Prof. Bonus | Maximum Dexterity | Armour Penalty | Speed Modifier | Weight | PDC | Restriction |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Insert, Light | +1 | +1 | +8 | -1 | - | 3 lbs . | 12 |  |
| Insert, Medium | +2 | +1 | +6 | -2 | - | 5 lbs . | 13 |  |
| Insert, Heavy | +3 | +1 | +6 | -3 | - | 7 lbs . | 14 |  |
| Helmet, Light | +2 | +1 | +10 | -1 | - | 3 lbs . | 14 |  |
| Helmet, Heavy | +3 | +2 | +8 | -2 | - | 5 lbs . | 15 |  |
| Plates, Lower-Body | +4 | +2 | +4 | -4 | - | 20 lbs . | 17 |  |
| Plates, Upper-Body | +4 | +2 | +4 | -4 | - | 20 lbs . | 17 |  |
| Plate, Full-Body | +8 | +3 | +1 | -6 | -10 ft . | 50 lbs . | 23 |  |
| Modified Armour |  |  |  |  |  |  |  |  |
| Heavy | - | - | $-2^{1}$ | -1 | $-10 \mathrm{ft}^{2}{ }^{2}$ | +50\% | -2 |  |
| Light | - | - | $+2^{1}$ | +1 | $+10 \mathrm{ft.}^{2}$ | -50\% | +2 |  |
| Ultra-Light | - | - | $+4^{1}$ | - | $+10 \mathrm{ft.}^{2}$ | -75\% | +3 |  |
| Flexible | - | - | $+2^{1}$ | - | $+10 \mathrm{ft}^{2}$ | - | +1 |  |
| Hardened | +1 | - | - | - | - | - | +2 |  |
| Softened | -1 | - | - | - | - | - | -2 |  |
| Conductive | - | - | - | - | - | - | -1 |  |
| Ferrous | - | - | - | - | - | - | -1 |  |
| Fragile | - | - | - | - | - | - | -2 |  |
| Low Melting Point | - | - | - | - | - | - | -1 |  |

${ }^{1}$ This number modifies the Maximum Dexterity of a pre-existing piece of body armour.
${ }^{2}$ This number adjusts the Speed Modifier of a pre-existing piece of body armour. It "adds" speed only to armour that reduces your speed.

## Helmets

Helmets fit over the head and protect the skull and wrap around the face, thus protecting some of the most vital areas of the body. They are most typically designed for riding motorcycles or other open-air vehicles, but are also designed for some sporting events, like fencing. They always have some way of seeing out the front, either a hardened but clear polymer, a fine mesh, or even a traditional slatted "beaver," as found in medieval armour. Light Helmets impose a -2 penalty to Observe checks, and Heavy Helmets impose a -4.

## Plates

Plates are form-fitting pieces of hardened material (metal, ceramic, polymers, etc.) that affix to the outside of your body, on top of your clothes, usually by straps, buckles, velcro, or some combination therefore. They most resemble "armour" in the traditional sense. Lower-Body plates cover the thighs, shins, and groin, and Upper-Body plates cover the chest, stomach, back and shoulders. Full-Plate covers all of the above, as well as the arms, and usually includes gloves and boots made of heavyduty materials.

## Modifying Body Armour

You can buy slightly different kinds of body armour, which adjusts the PDC, as listed in the table. Almost all of the options translate to using better/poorer materials to make the armour (e.g., titanium instead of steel, household plastic instead of sophisticated polymers). In real terms, these kinds of armour are either custom made or home made, or of higher or lower quality. You cannot apply these modifications to protective gear found in the SRDs without your GM's explicit permission because
those items have specific physical qualities already (such as being made of metal). You can combine any and all modifications to body armour, except for Light and Ultra-Light, because the latter is just an improved version of the former.

## Lighter/Heavier

This kind of body armour is made of materials of different weights but similar hardness. Adjust its Maximum Dexterity, Armour Penalty, and Speed Modifier accordingly.

## Flexible

This kind of body armour is made of materials that can bend and flex but retain their protective qualities, such as meshes, textiles that become rigid on impact, or space-age variations on good old chain mail. Adjust the Maximum Dexterity of the armour as indicated.

## Hardened/Softened

This kind of body armour is made of materials of different hardness/softness, but about the same weight. Reduce or increase its Equipment bonus to Defence as indicated.

## Conductive

This kind of body armour conducts electricity. It is usually made of metal, but other materials are theoretically possible.

## Ferrous

This kind of body armour is made of a metal that can be affected by magnetic fields.

Table 7-5 Super Strength Stats

| Strength <br> Score | Bonus | Light | Medium | Heavy |
| :---: | :---: | :---: | :---: | :---: |
| 10 | - | 33 lb . | 66 lb . | 100 lb . |
| 11 | - | 38 lb . | 76 lb . | 115 lb . |
| 12 | +1 | 43 lb . | 86 lb . | 130 lb . |
| 13 | +1 | 50 lb . | 100 lb . | 150 lb . |
| 14 | +2 | 58 lb . | 116 lb . | 175 lb . |
| 15 | +2 | 66 lb . | 133 lb . | 200 lb . |
| 16 | +3 | 76 lb . | 153 lb . | 230 lb . |
| 17 | +3 | 86 lb . | 173 lb . | 260 lb . |
| 18 | +4 | 100 lb . | 200 lb . | 300 lb . |
| 19 | +4 | 116 lb . | 233 lb . | 350 lb . |
| 20 | +5 | 133 lb . | 266 lb . | 400 lb . |
| 21 | +5 | 153 lb . | 306 lb . | 460 lb . |
| 22 | +6 | 173 lb . | 346 lb . | 520 lb . |
| 23 | +6 | 200 lb . | 400 lb . | 600 lb . |
| 24 | +7 | 233 lb . | 466 lb . | 700 lb . |
| 25 | +7 | 266 lb . | 533 lb . | 800 lb . |
| 26 | +8 | 306 lb . | 613 lb . | 920 lb . |
| 27 | +8 | 346 lb . | 693 lb . | 1,040 lb. |
| 28 | +9 | 400 lb . | 800 lb . | 1,200 lb. |
| 29 | +9 | 466 lb . | 933 lb . | $1,400 \mathrm{lb}$. |
| 30 | +10 | 532 lb . | 1,064 lb. | 1,600 lb. |
| 31 | +10 | 612 lb . | 1,224 lb. | 1,840 lb. |
| 32 | +11 | 692 lb . | 1,384 lb. | 2,080 lb. |
| 33 | +11 | 800 lb . | 1,600 lb. | 2,400 lb. |
| 34 | +12 | 932 lb . | 1,864 lb. | 2,800 lb. |
| 35 | +12 | $1,064 \mathrm{lb}$. | 2,132 lb. | 3,200 lb. |
| 36 | +13 | 1,224 lb. | 2,452 lb. | 3,680 lb. |
| 37 | +13 | 1,384 lb. | 2,772 lb. | $4,160 \mathrm{lb}$. |
| 38 | +14 | 1,600 lb. | 3,200 lb. | $4,800 \mathrm{lb}$. |
| 39 | +14 | 1,864 lb. | 3,732 lb. | 5,600 lb. |
| 40 | +15 | 2,128 lb. | 4,256 lb. | 6,400 lb. |
| 41 | +15 | 2,448 lb. | 4,896 lb. | 7,360 lb. |
| 42 | +16 | 2,768 lb. | 5,536 lb. | 8,320 lb. |
| 43 | +16 | 3,200 lb. | 6,400 lb. | $9,600 \mathrm{lb}$. |
| 44 | +17 | $3,728 \mathrm{lb}$. | 7,456 lb. | $11,200 \mathrm{lb}$. |
| 45 | +17 | $4,256 \mathrm{lb}$. | $8,528 \mathrm{lb}$. | $12,800 \mathrm{lb}$. |
| 46 | +18 | 4,896 lb. | 9,808 lb. | $14,720 \mathrm{lb}$. |
| 47 | +18 | $5,536 \mathrm{lb}$. | $11,088 \mathrm{lb}$. | $16,640 \mathrm{lb}$. |
| 48 | +19 | $6,400 \mathrm{lb}$. | $12,800 \mathrm{lb}$. | $19,200 \mathrm{lb}$. |
| 49 | +19 | 7,456 lb. | $14,928 \mathrm{lb}$. | 22,400 lb. |
| 50 | +20 | 8,512 lb. | $17,024 \mathrm{lb}$. | 25,600 lb. |
| 51 | +20 | $9,792 \mathrm{lb}$. | $19,584 \mathrm{lb}$. | $29,440 \mathrm{lb}$. |
| 52 | +21 | $11,072 \mathrm{lb}$. | 22,144 lb. | $33,280 \mathrm{lb}$. |
| 53 | +21 | $12,800 \mathrm{lb}$. | 25,600 lb. | $38,400 \mathrm{lb}$. |
| 54 | +22 | $14,912 \mathrm{lb}$. | 29,824 lb. | $44,800 \mathrm{lb}$. |
| 55 | +22 | $17,024 \mathrm{lb}$. | $34,112 \mathrm{lb}$. | $51,200 \mathrm{lb}$. |
| 56 | +23 | 19,584 lb. | 39,232 lb. | $58,880 \mathrm{lb}$. |
| 57 | +23 | $22,144 \mathrm{lb}$. | $44,352 \mathrm{lb}$. | $66,560 \mathrm{lb}$. |
| 58 | +24 | 25,600 lb. | $51,200 \mathrm{lb}$. | $76,800 \mathrm{lb}$. |

## Fragile

This kind of body armour is made of a material, like ceramics or certain plastics, that does not bend or dent but instead shatters when it takes a blow at the wrong angle and/or of sufficient strength. Every time you either (a) take a critical hit or (b) take 30 or more HPs of damage in a single blow, Fragile body armour loses 1 point of protection. If this reduces the body armour to +0 , then the damage effectively destroys it. It falls off your body in shards and chunks.

## Low Melting Point

This kind of body armour is usually made of plastic, but it can also be certain kinds of metal. The most common low-melting-point body armour is athletic padding (e.g., hockey, American football, etc.). Whenever it takes fire/heat damage of 30 HPs or more, it loses 1 point of protection. Whenever it takes electrical/ lightning damage of 50HPs or more, it loses 1 point of protection. This reduction is cumulative. If it reduces the body armour to +0 protection, then the armour has effectively melted right off of your body. It'll be a pain in the ass to clean up, I'll tell ya that.

## Super Attacks

> "Super" is the Phoenix equivalent of "magic." It's the catchall term for anything outside of the normal range of human ability. Any in-game effect that has an Origin is automatically Super. Any attack or effect that comes from an item-mystical, psionic, or supertech-is Super. Enhancements granted by Mastercraft tools or weapons are not Super, but those granted by Supercraft weapons are Super.

> Ability scores of $\mathbf{2 5}$ or more are Super. Therefore an attack aided by one of those scores, usually Strength or Dexterity, is Super as well. A rock (or a car) thrown by someone with a Dexterity of 27 is Super. A punch from someone with a Strength of 32 is Super.

> Like magic in standard d20 games, Super attacks in Phoenix automatically bypass DR. Similarly, anything or anyone normally only hit by magic weapons or attacks can be hit by Super attacks.

> Super Strength

Super Strength mostly speaks for itself. You have a higher Strength score and your bonuses go up accordingly. Strength scores of 25 or above are Super, and 24 and below are not. Super Strength also automatically does lethal damage, whereas scores of 24 and below do not. Published sources tend not to list the encumbrance and loads for scores above 30, and because those are important for super fights, we calculated them for you (see Table 7-5).

## Improvised Weapons

Super fights get a little nuts in comics, and so they should in Phoenix. Streets are ripped up. Cars a thrown. Buildings topple. Because Strengths scores can be well above the human range,
the normal Improvised Weapons rules aren't always applicable. In Phoenix, you can use an improvised weapon, in mêlée or as a projectile, if it is less than your Light load. If it is less than half your light load, then you can wield it/throw it with hand. If you increase your loads through the power Mighty Lifting, then you do indeed increase the maximum weight of objects you can use as improvised weapons.

If your improvised weapon is four or more size categories different than your own, in either direction, then you simply don't have the leverage or fine control to wield it like a weapon. A fine-sized hero trying to lift a car is going to have a hard time finding something to grab, even if she has the Strength to do it. A colossal-sized hero trying to throw a baseball will probably just crush it between thumb and forefinger.

Over-sized weapons do damage according to Table 7-6 (previous page). The damage on this table has been adjusted upwards because superheroes are generically prone to hitting people with things that are lying around, so the damage potential should match that tendency. We've also added the size category "Ginormous" because Colossal just wasn't big enough. GMs can, of course, adjust the damage up or down depending on the circumstances. Objects that weigh significantly more than the average for their size, for example, might do more damage, and objects that are less heavy than the average for their size might do less. Also, objects that are more aerodynamic or easier to wield might do more damage, or vice-versa. As a rule of thumb, every 100 pounds of weight adds 1 d 6 damage. However, any players who whine, carry on, and generally makes asses of themselves about the weight of a thrown object in order to weasel their way into more damage should know that such behaviour is not appreciated by the GM.

Table 7-6 Improvised Weapon Damage

| Object Size | Examples | Weapon Damage |
| :---: | :---: | :---: |
| Fine | coin, ball-point pen, computer mouse | - |
| Diminutive | ashtray, CD case, paperweight | 1 |
| Tiny | small rock, mug, screwdriver, wrench | 1d3 |
| Small | big rock, drill, helmet, fire extinguisher, flower pot | 1 d 6 |
| Medium | brick, briefcase, bowling ball, hockey stick, guitar | 1 d 8 |
| Large | garbage can, TV set, office chair, tire iron | 2d6 |
| Huge | 10-foot ladder, mailbox, oil barrel, park bench | 4d6 |
| Gargantuan | dumpster, pop machine, very small car | 8d6 |
| Colossal | pick-up truck, shed, telephone pole, | 12d6 |
| Ginormous | 18-wheeler, private jet, small building, hummer | 16 d 6 |

Thrown objects generally lose their kinetic energy when they hit their targets and fall to the ground, but if the object in question is more than twice the weight of the target, it will continue to fly along its vector for two range increments before it starts to plummet. An object that can roll, due to a round shape or sufficiently robust wheels, might continue for another range increment, but unless it lands on a slope or gets some other help, it will stop at that point. GMs are encouraged to eyeball where such objects land and PCs are encouraged not to get too wrapped up in real-world physics.

You can also throw objects in such a way that they spend most of their movement scraping along the ground. After one full range increment in the air, the object hits the ground and begins sliding, exactly as if it were affected by a knockback (see below). The thrower makes a damage roll for the object, and it travels half that distance in feet. If the object rolls or has wheels, it travels the full distance.

Slowing a Rolling Object
If you are in the path of a rolling object and you have Super Strength then you can try to hasten its deceleration. As a fullround action, you can plant your feet on the ground and grit your teeth. Every round, you roll a Strength check and reduce the object's remaining HPs/feet by that number. If you you are flying, you can use a full-round action to reduce the object's remaining HPs/feat by 1 d 6 per 100 pounds of you can lift. In either case, if you have the power Mighty Lifting, apply its modifier before you make your Strength check.

Table 7-7 Running Speeds

| Running Multiplier | 20 feet (encumbered) | 30 feet | 60 feet (x2) | 90 feet <br> (x3) | 120 feet (x4) | 150 feet (x5) | 180 feet (x6) | $\begin{gathered} 210 \text { feet } \\ (\times 7) \end{gathered}$ | $240 \text { feet }$ (x8) | $\begin{gathered} 270 \text { feet } \\ (\mathrm{x} 9) \end{gathered}$ | 300 feet (x10) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{x} 1$ <br> Hustle | 2.3 mph | 3.4 mph | 6.8 mph | 10 mph | 14 mph | 17 mph | 20 mph | 24 mph | 27 mph | 31 mph | 34 mph |
|  | 3.6 kph | 5.5 kph | 10.9 kph | 16 kph | 22 kph | 27 kph | 33 kph | 38 kph | 44 kph | 49 kph | 55 kph |
| $\begin{gathered} \text { x4 } \\ \text { Run } \end{gathered}$ | 7 mph | 10 mph | 20 mph | 31 mph | 41 mph | 51 mph | 61 mph | 72 mph | 82 mph | 92 mph | 102 mph |
|  | 11 kph | 16 kph | 33 kph | 49 kph | 65 kph | 82 kph | 98 kph | 115 kph | 131 kph | 147 kph | 164 kph |
| x5 | 9 | 14 | 27 mph |  | 55 mph | 68 mph | 82 mph |  | 109 mph | 123 mph |  |
|  | 15 kph | 22 kph | 44 kph | 65 kph | 87 kph | 109 kph | 131 kph | 153 kph | 175 kph | 196 kph | 218 kph |
| x8 | 18 mph | 27 mph | 55 mph | 82 mph | 109 mph | 136 mph | 164 mph | 191 mph | 218 mph | 245 mph | 273 mph |
|  | 29 k | 44 kph | 87 | 131 kph | 175 | 218 kph | 262 kph | 305 | 349k | 393 kph | 436 kph |
| x16 | 36 mph | 55 mph | 109 mph | 164 mph | 218 mph | 273 mph | 327 mph | 382 mph | 436 mph | 491 mph | 545 mph |
|  | 58 kph | 87 kph | 175 kph | 262 kph | 349 kph | 436 kph | 524 kph | 611 kph | 698 kph | 785 kph | 873 kph |
| x32 | 73 m | 109 mp | 218 mph | 32 | 436 mp | 545 m | 655 m | 764 m | 873m | 98 | 1,091mph |
|  | 116 kph | 175 kph | 349 kph | 524 kph | 698 kph | 873 kph | $1,047 \mathrm{kph}$ | $1,222 \mathrm{kph}$ | 1,396kph | $1,571 \mathrm{kph}$ | $1,745 \mathrm{kph}$ |
| x64 | 145 mph | 218 mph | 436 mph | 655 mph | 873 mph | 1,09 | 1,309mph | 1,527 | , | $1,964 \mathrm{mph}$ | mph |
|  | 233 kph | 349 kph | 698 kph | 1,047kph | 1,396kph | 1,745kph | 2,095kph | $2,444 \mathrm{kph}$ | $2,793 \mathrm{kph}$ | $3,142 \mathrm{kph}$ | $3,491 \mathrm{kph}$ |
| x 128 | 291 mp | 436 | 873 | 1,309m | 745m | 2,182m | 2,618m | $3,055 \mathrm{~m}$ | $3,491 \mathrm{~m}$ | $3,927 \mathrm{mph}$ | $4,364 \mathrm{mph}$ |
|  | 465 kph | 698 kph | 1,396kph | $2,095 \mathrm{kph}$ | 2,793kph | $3,491 \mathrm{kph}$ | $4,189 \mathrm{kph}$ | $4,887 \mathrm{kph}$ | $5,585 \mathrm{kph}$ | $6,284 \mathrm{kph}$ | $6,982 \mathrm{kph}$ |
| x256 | 582 mph | 873 mph | $1,745 \mathrm{mph}$ | 2,618mp | 1 | 4,364m | 5,236m | 6,109m | 6,982m | 551 | $8,727 \mathrm{mph}$ |
|  | 931 kph | 1,396kph | 2,793kph | $4,189 \mathrm{kph}$ | $5,585 \mathrm{kph}$ | $6,982 \mathrm{kph}$ | 8,378kph | $9,775 \mathrm{kph}$ | $11,171 \mathrm{kph}$ | $12,567 \mathrm{kph}$ | $13,964 \mathrm{kph}$ |
| x512 | $1,164 \mathrm{mph}$ | $1,745 \mathrm{mph}$ | $3,491 \mathrm{mph}$ | $5,236 \mathrm{mph}$ | 6,982mph | $8,727 \mathrm{mph}$ | $10,473 \mathrm{mph}$ | $12,218 \mathrm{mph}$ | $13,964 \mathrm{mph}$ | $15,709 \mathrm{mph}$ | mph |
|  | 1,862kph | $2,793 \mathrm{kph}$ | $5,585 \mathrm{kph}$ | $8,378 \mathrm{kph}$ | $11,171 \mathrm{kph}$ | $13,964 \mathrm{kph}$ | $16,756 \mathrm{kph}$ | $19,549 \mathrm{kph}$ | 22,342kph | $25,135 \mathrm{kp}$ | $27,927 \mathrm{kph}$ |
| x1024 | 2,327m | $3,491 \mathrm{mph}$ | $6,982 \mathrm{mph}$ | 0,473mph | $13,964 \mathrm{mph}$ | $17,455 \mathrm{mp}$ |  |  |  | $31,418 \mathrm{mph}$ |  |
|  | $3,724 \mathrm{kph}$ | $5,585 \mathrm{kph}$ | $11,171 \mathrm{kph}$ | $16,756 \mathrm{kph}$ | 22,342kph | $27,927 \mathrm{kph}$ | $33,513 \mathrm{kph}$ | $39,098 \mathrm{kph}$ | $44,684 \mathrm{kph}$ | $50,269 \mathrm{kph}$ | $55,855 \mathrm{kph}$ |
| x2048 | $4,655 \mathrm{mph}$ | $6,982 \mathrm{mph}$ | $13,964 \mathrm{mph}$ | $20,945 \mathrm{mp}$ | 27,927m | $34,909 \mathrm{~m}$ | ,891m | 48,873m | $55,855 \mathrm{~m}$ | , 836 m | 69,818mph |
|  | $7,447 \mathrm{kph}$ | $11,171 \mathrm{kph}$ | $22,342 \mathrm{kph}$ | $33,513 \mathrm{kph}$ | $44,684 \mathrm{kph}$ | $55,855 \mathrm{kph}$ | $7,025 \mathrm{kp}$ | 8,196kp | 89,367kp | 00,538kp | $111,709 \mathrm{kp}$ |
| x4096 | $9,309 \mathrm{mph}$ | $13,964 \mathrm{mp}$ | $27,927 \mathrm{mph}$ | $41,891 \mathrm{mph}$ | 55,855m | $69,818 \mathrm{mph}$ | 83,78 | 97,745mph | 111,709 | 25,673mph | 39,636mph |
|  | 14,895kph | 22,342kph | $44,684 \mathrm{kph}$ | 67,025kph | 89,367kph | $111,709 \mathrm{kph}$ | $134,051 \mathrm{kph}$ | $156,393 \mathrm{kph}$ | $178,735 \mathrm{kph}$ | 201,076kph | 223,418kph |
| x8192 | $18,618 \mathrm{mph}$ | $27,927 \mathrm{mph}$ | $55,855 \mathrm{mph}$ | $83,782 \mathrm{mph}$ | $111,709 \mathrm{mph}$ | $139,636 \mathrm{mph}$ | $167,564 \mathrm{mph}$ | 195,491mph | $223,418 \mathrm{mph}$ | $251,345 \mathrm{mph}$ | $279,273 \mathrm{mph}$ |
|  | $29,789 \mathrm{kph}$ | $44,684 \mathrm{kph}$ | $89,367 \mathrm{kph}$ | $134,051 \mathrm{kph}$ | $178,735 \mathrm{kph}$ | 223,418kph | 268,102kph | $312,785 \mathrm{kph}$ | $357,469 \mathrm{kph}$ | $402,153 \mathrm{kph}$ | 446,836kph |
| x16348 | $37,155 \mathrm{mph}$ | $55,732 \mathrm{mph}$ | $111,464 \mathrm{mph}$ | $167,195 \mathrm{mph}$ | 222,927mph | $278,659 \mathrm{mph}$ | $334,391 \mathrm{mph}$ | $390,123 \mathrm{mph}$ | $445,855 \mathrm{mph}$ | 501,586mph | $557,318 \mathrm{mph}$ |

## Massive Damage

Sometimes, an attack is so powerful that even if it doesn't reduce your HPs to zero, it's still so traumatic that your body just can't take it. This is massive damage. Phoenix uses a combination of the two published massive damage systems.
Your massive damage threshold is either 50 HPs , or it equals your Constitution score (not your modifier) multiplied by your total character levels, whichever is lower. If you take damage from a single attack that equals or exceeds your massive damage threshold, then you must make a Fortitude save against DC 15 or immediately drop to -1 HPs , but stabilized.

For example, if you were $3{ }^{\text {rd }}$ level and had a Constitution of 14 , then your massive damage threshold would be 42 . If a single attack were to do 42HPs or more, you would then be forced to roll a Fortitude save against DC 15. If you failed that save, you would drop to -1 HPs , stabilized.

We've altered massive damage in Phoenix so that normal people drop pretty quickly (i.e., they're at -1 HPs and stable), and heroes can avoid accidentally killing people because they're
standard attacks do well in excess of how much the average person can take without dying.

## Movement

Superheroes tend to travel by unusual means, mostly because they're cool, not always because they make sense. This section details three modes of movement: super speed, swinging, and Zero-Gravity.

## Super Speed

Table 7-7 (next page) lists all the possible speeds at which you could move using Super Speed, if you start with a base speed of 30 . This covers the majority of characters. Before you even look at this table, ask yourself if it's information you actually need to know, because if it's not, then don't bother. If you intend to use your flight or running speed to actually travel from place to place, especially during a game, then you'll want to know how fast you can move, but if you're concerned only with movement during combat, then just use your speed in feet per round.

If you do consult the table, you'll want to make sure you know what you're looking for before you start because there are a lot of boxes with very small numbers.

First, all speeds are listed in both miles per hour (mph) for our American friends and then in kilometres per hour (kph) for the rest of us.

Second, the left-most column is the speed multiplier for when you are Running as a full-round action. This corresponds to the basic Super Speed power which increases only your Running multiplier. If you don't take any levels of Fast Move, then the first two columns are all you ever need to worry about. Just look up your "Running Multiplier" and then check the "Base Speed 30 ft " column. Now you know how fast you can Run. Record that number on your character sheet and you never need to look at this gawd-awful table again.

If you took levels of Fast Move, however, you need to find your new base speed and cross-reference it to your Running Multiplier, if any. If you start with a Base Speed of 30 feet, for example, and then purchase 3 levels of Fast Move (x4), then your Base Speed would be 120 feet ( 30 ft . x 4 ). If you also purchased a Running Multiplier of x 12 , then your full Running speed would be 1,440 feet per round, which works out to 175 kph ( 109 mph ). You'd zoom past highway traffic.

All of these calculations apply regardless of whether you're running, flying, driving, or swinging on a web-line. If you can go 120 feet as a move action while riding your bicycle, then you can travel at $22 \mathrm{kph}(16 \mathrm{mph})$, for example.

To get some real-world perspective, a Speed of 2880 ft . (90 ft . Hustle, x 32 Run) is $327 \mathrm{mph} / 524 \mathrm{kph}$, which is just shy of the speed of sound, ${ }^{1}$ or Mach 1. So Mach 2, twice the speed of sound, is about $655 \mathrm{mph} / 1047 \mathrm{kph}(90 \mathrm{ft}$. Hustle, x64). A Speed of 4,904,400 ( 300 ft . Hustle, x 16348 Run ) is $557,318 \mathrm{mph} /$ $891,709 \mathrm{kph}$, which is creeping up on 0.1 C , or $1 / 10^{\text {th }}$ the speed of light. The idea that someone can move at these kinds of speeds by slapping their feet against the ground is, of course, ridiculous, but that's sort of the point, isn't it?

If you have a Base Speed that's not on this table, then you must use the following formula: multiply your Base Speed by your Running speed, then divide by 8.8 to get your realworld speed in miles per hour. Take your MPH and multiply by 1.6 to find your KPH. If you have a non-standard base speed or you can sometimes move at different Base Speeds (for example if you can Size Shift), then please do all these calculations before you get to the gaming table. It's only polite.

## Swinging

Dangling on the end of a rope 20 stories in the air isn't the most prudent thing to do, usually, but it looks so damn cool that it's a major part of superhero comics. The in-game benefit of swinging is that you can cover a bigger distance than a jump, without nearly as much chance of falling to your pulpy death.

[^0]Swinging as Movement
Swinging on a rope is part of a move action, like jumping or climbing, but you swing twice as fast as your size and encumbrance would normally allow (NB: Super Speed does not increase swinging speed). If you swing for a distance of 30 feet, it counts as only 15 feet of your movement.

To swing, you need a rope or other tether, like a strand of Webbing, that is connected more or less equidistant between your self and the spot you want to land on. You also need some room below you because the arc the swing will take you down before it goes up again. If it's pertinent (e.g., you might actually hit the ground), then you need an extra 5 feet downwards for every 25 of total swinging distance. A 50 -foot swing requires about 10 feet of extra space below you, for example. If there isn't enough space, then you must make a Reflex save, DC 15, or you hit the ground and take falling damage as normal. If you make the save, then you hit the ground running. You can substitute a Tumble check for the Reflex save, at your discretion.

To determine success or failure for the swing, make a Tumble check DC $14 .{ }^{2}$ The DC rises by +2 for every 5 feet out of true the swing is. "Out of true" means one of three things: (1) the start point and end point are at different heights, (2) you have to swing in a lateral arc (i.e., around instead of straight), or (3) the fixed point of the tether isn't equidistant between your start and end points. You also add $+\mathbf{2}$ for every

## 50 pounds over a light load.

Example: If the rope's fixed point were 5 feet closer to you than your target point or 5 feet to the left (so that you have to swing in an arc), the DC would be 12 . If the end point of the swing were 10 feet higher than your starting point, the DC would be 14 . If all three factors were out by 5 feet, then the DC would be 16 . If all three were out by 10 feet, the DC would be 22. And so on.

This can get to be a complicated set of calculations, so GMs are encouraged to eye-ball the DC. GMs are also encouraged to let 'flavour' swinging go without tedious checks. If it's just for show, to make the character look cool, then don't sweat it. If it's actually a risky manoeuvre, then enforce the rolls.

If you succeed, you land on your target square, on your feet. If you fail the check, you land prone and take 1 d 6 nonlethal damage. This does not provoke an attack of opportunity, but standing up does. If you fail the check by more than 10 , then you fall in mid-swing at a point to be determined randomly.

Example: You're attempting to make a 50 -foot swing with a fixed point 15 feet off of a straight line, 5 feet too close to you, and landing on a rooftop that is 10 higher than where you're standing. At +2 to the DC for every 5 feet out, that's a DC 24 . Difficult, but not impossible. If you were to roll a 25 , you would land clean. If you were to roll a 20 , you would hit the ground like a sack of wheat, but you would just get the wind knocked out of you. If you were to roll a 10, you would fall right off the rope, into the traffic and soon-to-be traumatised bystanders,

[^1]below. We hope you have clean underwear on (see Falling While Swinging, below).

## Jumping at the End of a Swing

If you let go of the rope when it's more or less horizontal (at the end of your swing), you can make a Jump check as if you had a running start. You swing your body upward to achieve height, or throw it forward to achieve distance. Thus, you can swing across a chasm, let go of the rope at the other end, and make a fresh Jump check, all as part of the same move action.

## Kicking Off in Mid-Swing

Although you cannot change your swinging trajectory in mid-swing, you can push off of a solid, anchored point, like swinging against the side of a building and kicking off of it. If you swing at an angle to the wall, you can make a Jump check as if you had a running start. The result of the check indicates how far along the arc of the swing you manage to get (i.e., how far you launch yourself away from the wall). If you swing straight into a wall, you can repel off of it as if you were making a Jump check without a running start. The distance, again, indicates how far you manage to get from the wall, along the arc of the rope's length. Swinging directly into a wall, however, causes the same amount of damage as falling, but you can reduce that damage just as you would a normal fall (i.e., through a Tumble check, or Catfalling).

## Continuous Swinging

If you have Webbing, you can fire a fresh strand as a standard action each round. Thus, you can change direction by affixing a fresh strand to a new anchor point and letting go of the old strand. This whole chain requires a move action (swing) and a standard action (fire strand). If you're doing it as a form of movement, out of combat, you just need to make a single Tumble check, as part of your move action, with a base DC of 20. Failing means that you simply didn't manage to affix a second strand and you're still on your original strand. Failing by 10 or more means that you fall (see below, Falling While Swinging). At the end of this full-round action, you're again in mid-swing and ready to start the whole thing over again the next round. You pick a new direction in which to swing at the beginning of this full-round action.

GMs are, of course, free to increase the DC for performing swings in difficult environments, like through a very skinny alley, between moving vehicles, or the like. In fact, it's worth noting that the GM always retains the right to increase DC's as she sees fit.

If you're out of combat and swinging as a form of transportation, then you can make these Swinging checks once per minute instead of once per round. If your Tumble bonus is high enough that you're guaranteed success, then rolling isn't necessary because natural 1's are not automatic failures on skill checks. Lucky you!

You can, in theory, keep swinging and switching ropes indefinitely. However, it is extremely tiring. Moving in this way is like running. Thus, you can keep swinging for a number of rounds equal to your Constitution score, but once those rounds are expended you must make a DC 10 Constitution check. The DC of this check increases by 1 every round until you fail or finally arrive wherever it is you're going in such a damn hurry.

If you fail this check, you just don't have the energy for another swing and you must rest for 1 minute ( 10 rounds) to get your breath back. You can rest while hanging off of your rope, but every time the strand swings with you on it as dead weight, it looses 1 foot of distance and height at both ends, so after 10 rounds, you've lost a total of 20 feet ( 10 feet at each end). You can also climb down off of your rope, if that's an option, and rest on the ground for a mere 60 seconds. While resting, you are not at any penalties. You just don't have the energy to do any more swinging manoeuvres or to employ the Run action.

## Falling While Swinging

If and when you fall off a rope, you fall at a slight angle in the direction in which you were swinging. For every 20 feet you fall downwards, you also drift 5 feet in the direction of your swing. If this causes you to impact a solid surface, like a building, then you take damage as if you'd fallen to that height, and then you start to fall straight down (i.e., you land in that same square). For example, you fall at 120 feet in the air and drift into a building after 40 feet, so you'd take damage as if you'd fallen 40 feet. If and when you hit the ground at the end of that fall, you take damage from the whole fall: 120 feet.

However, there is no need to calculate the exact number of feet you travel laterally unless the game calls for it. If, for example, you might drift next to a building that you could grab on to to keep from falling, then calculate your lateral movement, but if you're just spiralling through empty air, there's no need to burn the brain-cells doing the math.

## Swinging in Combat

While you are swinging, you lose your Dexterity and dodge bonuses to Defence, but you are a rapidly-moving target, the same as if you were running, and therefore also get a +2 to your Defence. If you are hit for damage while in mid-swing (between rounds or by a Readied action), you must make a Fortitude save with a DC equal to the damage you took. If you fail, the pain and stress of the taking damage causes you to involuntarily let go of the rope. For Swinging attacks, see "New Combat Manoeuvres" (above)

## Zero-Gravity

In Zero-G, all your attacks, Jump, and Tumble checks are at -4, unless you have the Astrobatics feat (see Chapter 4). You cannot perform a Run action in space, but if you can fly, then you can move freely as if every direction were "lateral" movement (i.e., there is no up or down). However, if your
ability to fly relies on being in an atmosphere (i.e., Wings) and you're in the vacuum of space, then you're out of luck.

If you can't fly, you move in zero-G environments by pushing off of one fixed point and "landing" on another. For mundane movement, just floating around inside a ship for example, there's no need to make any rolls. In combat or other dangerous situations in which timing is important, however, you must essentially throw yourself from one place to another, which requires either a ranged touch attack or a Tumble check (player's choice). You have a range increment of $\mathbf{3 0}$ feet and the DC for the attack/Tumble check equals the Defence score of the square you want to arrive on. An object or surface that takes up a five-foot square area has a Defence of 10, but a medium-sized object is Defence 14 , a small object is Defence 18, and so on. You cannot Run in zero-G while throwing yourself around, unless you can Run as part of a flying move action.

However, you do not automatically stop on a square. Instead, you have to land on a large surface or grab a fixed
object to arrest your movement, which you can automatically do at the end of a single move action. If you take a double-move, however, you must make a Reflex save (DC equals $10+2$ per 10 feet of Tumble distance) to arrest your movement.

If there is nothing to grab on to in that square, then you keep moving, involuntarily, at your movement rate. You can perform actions while you move, but you cannot perform move actions unless you can stop moving and make another Tumble check. Involuntary movement occurs at 30 feet per round and does not count against your movement.

## Zero-G Combat

In space, everyone has a Knockback Threshold of 10, you do not need Super Strength to provoke Knockback, and Knockback distance applies to both your target and yourself (because of Newton's Second Law... look it up). If you can fly, your Knockback Threshold is unaffected, and you do not incur Knockback on yourself.


[^0]:    1 The speed of sound changes depending on air pressure and temperature, but this rule of thumb is good enough.

[^1]:    2 It's actually DC 10, but the rope always grants a +4 equipment bonus.

