I. Digestion

Recent evidence has once and for all discounted the theory that human flesh is the fuel for the undead. A zombie's digestive tract is completely dormant. The complex system that processes food, extracts nutrition, and excretes waste does not factor into a zombie's physiology. Autopsies conducted on neutralized undead have shown that their "food" lies in its original, undigested state at all sections of the tract. This partially chewed, slowly rotting matter will continue to accumulate, as the zom-

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bie devours more victims, until it is forced through the anus, or literally bursts through the stomach or intestinal lining. While this more dramatic example of non-digestion is rare, hundreds of eyewitness reports have confirmed undead to have distended bellies. One captured and dissected specimen was found to contain 211 pounds of flesh within its system! Even rarer accounts have confirmed that zombies continue to feed long after their digestive tracts have exploded from within.

J. Respiration

The lungs of the undead continue to function in that they draw air into and expel it from the body. This function accounts for a zombie's signature moan. What the lungs and body chemistry fail to accomplish, however, is to extract oxygen and remove carbon dioxide. Given that Solanum obviates the need for both of these functions, the entire human respiratory system is obsolete in the body of a ghoul. This explains how the living dead can "walk underwater" or survive in environments lethal to humans. Their brains, as noted earlier, are oxygenindependent.

K. Circulation

It would be inaccurate to say that zombies have no heart. It would *not* be inaccurate, however, to say that they find no use for it. The circulatory system of the undead is little more than a network of useless tubes filled with congealed blood. The same applies to the lymphatic system as well as all other bodily fluids. Although this mutation would appear to give the undead one more advantage over humanity, it has actually proved to be a godsend. The lack of fluid mass prevents easy transmission of the virus. Were this not true, hand-to-hand combat would be nearly impossible, as the defending human would almost certainly be splattered with blood and/or other fluids.

L. Reproduction

Zombies are sterile creatures. Their sexual organs are necrotic and impotent. Attempts have been made to fertilize zombie eggs with human sperm and vice versa. None has been successful. The undead have also shown no signs of sexual desire, either for their own species or for the living. Until research can prove otherwise, humanity's greatest fear—the dead reproducing the dead—is a comforting impossibility.

M. Strength

Ghouls possess the same brute force as the living. What power can be exerted depends greatly on the individual zombie. What muscle a person has in life would be all he possesses in death. Unlike a living body, adrenal glands have not been known to function in the dead, denying zombies the temporary burst of power we humans enjoy. The one solid advantage the living dead do possess is amazing stamina. Imagine working out, or any other act of physical exertion. Chances are that pain and exhaustion will dictate your limits. These factors do not apply to the dead. They will continue an act, with the same dynamic energy, until the muscles supporting it literally disintegrate. While this makes for progressively weaker ghouls, it allows for an allpowerful first attack. Many barricades that would have exhausted three or even four physically fit humans have fallen to a single determined zombie.

N. Speed

The "walking" dead tend to move at a slouch or limp. Even without injuries or advanced decomposition, their lack of coordination makes for an unsteady stride. Speed is mainly determined by leg length. Taller ghouls have longer strides than their shorter counterparts. Zombies appear to be incapable of running. The fastest have been observed to move at a rate of barely one step per 1.5 seconds. Again, as with strength, the dead's advantage over the living is their tirelessness. Humans who believe they have outrun their undead pursuers might do well to remember the story of the tortoise and the hare, adding, of course, that in this instance the hare stands a good chance of being eaten alive.

O. Agility

The average living human possesses a dexterity level 90 percent greater than the strongest ghoul. Some of this comes from the general stiffness of necrotic muscle tissue (hence their awkward stride). The rest is due to their primitive brain functions. Zombies have little handeye coordination, one of their greatest weaknesses. No one has ever observed a zombie jumping, either from one spot to another or simply up and down. Balancing on a narrow surface is similarly beyond their ability. Swimming is also a skill reserved for the living. The theory has been put forth that, if an undead corpse were to be bloated enough to rise to the surface, it could present a floating hazard. This is rare, however, as the slow rate of decomposition would not allow by-product gas to accumulate. Zombies who walk or fall into bodies of water will more likely find themselves wandering aimlessly across the bottom until eventually dissolving. They can be successful climbers, but only in certain circumstances. If zombies perceive prey above them, for example, in the second story of a house, they will always attempt to climb to it. Zombies will try to scale any surface no matter how unfeasable or even impossible. In all but the easiest situations, these attempts have met with failure. Even in the case of ladders, when simple hand-over-hand coordination is required, only one in four zombies will succeed.