

PHOENIX COMMAND



Advanced Damage Tables For Small Arms



LEADING EDGE

INTRODUCTION

The **Advanced Damage Tables Supplement** has been designed for use with the **Phoenix Command Combat System** from Leading Edge Games. It expands on the Hit Location and Damage Tables from that system, giving the player greater realism without any loss of playability.

The Hit Location Tables provide greater detail than the original, with the addition of Tables for shots from the Side, the Rear, and from Oblique angles. Included in these Tables are 25 new Hit Locations. Also, each Hit Location now has its own Damage Table, which shows the path of the bullet through the target area. The bones, organs, and tissue which make up the area are given, allowing the player the grisly satisfaction of knowing exactly what the bullet did.

Another special attribute of the Damage Tables is that Penetration is given in 1/10 point steps. This gives the Tables the ability to accurately represent damage from low-penetration weapons, such as small caliber pistols and shotguns firing birdshot. The Hit Location and Damage Tables provided in **Phoenix Command** itself are designed for powerful military weapons; now the low-caliber weapons more common to civilian use can be accurately simulated.

This is the second edition of the Advanced Damage Tables, and it features a few changes. The most obvious is the improved layout and legibility of the Damage Tables themselves, but additional rules and data for Shock Damage and the effects of bullets Glancing Off Bone are also included here for the first time.

Principle Design
Barry Nakazono

Writing and Design
David McKenzie

Illustrations
Toni Dennis

Editing and Quotes
Irene Kinzek

Phoenix Command Small Arms Damage Table Supplement © 1987, 1991
By Barry Nakazono and David McKenzie
Published by Leading Edge Games, P.O. Box 70669, Pasadena, CA 91107
Printed in USA

All rights reserved. This book is protected by Copyright. No part of this book may be reproduced in any form or by any means, including photocopying, or utilized by any information storage and retrieval system without the express written permission of the copyright owners.

Phoenix Command is a trademark of Leading Edge Games. 1989 Leading Edge Games.

1

ADVANCED DAMAGE TABLES

This is a detailed expansion of the **Hit Location and Damage Table (6)** found in the **Phoenix Command Small Arms Combat System**, with hit locations for **Front**, **Rear**, **Oblique**, and **Side** profiles. Damage is consistent with the condensed data of **Table 6**, but has been enhanced to show the actual bullet path within each hit location. Penetration values are in tenth points, giving greater resolution and allowing **Disabling Injuries** and **Shock Damage** to be more accurately portrayed.

As in the original system, Physical Damage is determined by the bullet's penetration into a specific body location. This supplement contains over 60 specific hit locations, some of which are shown in **Figure 1**. This method assesses damage much more heavily when a vital area such as the heart is hit rather than a less vital area like a limb. Coincidentally, this means that no "critical hit" table is necessary and the chance of death is much greater from one major wound than many minor ones.

1.1

HIT LOCATION

"The richer you are, the cheaper life becomes."

Norman Steels

Whenever a person has been hit by small arms fire, the first step in determining the Physical Damage inflicted is to find the specific **Hit Location**. This is done by referring to the **Hit Location Tables** starting on the sixth page of this supplement. There are three pages of Hit Location Tables. The first is used for a person hit from the **Front** or **Rear**, the second for a hit from an **Oblique** angle, and the third for a hit from the **Side**.

Whenever a target is hit, refer to the proper table and find the appropriate target exposure in the first three columns. This target exposure depends on the target's posture and is given for the target **Looking Over** blocking cover, **Firing Over** blocking cover, and **In the Open**. Refer to the appropriate column and roll a 00-99 (or 000-999) random number. Find the line with the number rolled and read off the **Hit Location and Damage Table Number(s)** to the right. This gives the bullet's **Hit Location** and the number of the detailed Damage Table which will determine the Physical Damage. For limb locations, the left hit location numbers indicate a hit into the left limb, while a roll onto the right hit location numbers indicates a hit into the right limb.

Note that some Damage Table entries have two Damage Table Numbers listed. This indicates that the bullet strikes the first (left) location first, and, if it penetrates, continues on to strike the second location.

Examples:

A target **Firing Over** blocking cover is hit from the **Front**. A 62 is rolled, indicating a hit into the left **Shoulder**, Damage Table Number 9.

A target **In the Open** is hit from an **Oblique** angle. A 125 is rolled, indicating a hit into the **Arm Flesh** of the arm closest to the shooter, and the **Lung**, Damage Table Numbers 11 and 19. The bullet strikes the **Arm** that is nearest the shooter, and if it overpenetrates, it also strikes the target in the **lung**.

1.2

REAR HIT LOCATIONS

The Damage Tables have been designed to handle hits from the target's front, but can be used for hits from the rear. For hits from the rear, subtract the Shot's EPEN from the table's far right hand EPEN entry. Enter the table with this number and read off the damage from the appropriate Damage Class line. Now subtract the damage just found from the far right hand PD entry (same DC Line). This gives the actual damage done from a shot striking the target's rear and penetrating forward.

Example:

A target is hit from the rear in the Neck - Throat - Spine Table 6 by a shot whose EPEN = 1.4 and DC = 3. Table 6 is entered with an EPEN of 3.3 (far right entry) - 1.4 = 1.9. The PD for DC = 3 is 21H. The actual PD inflicted is 29H (far right entry) - 21H = 8H PD.

1.3

GLANCING OFF BONE

The Damage Tables of this supplement are ideal for determining the damage inflicted by low penetration weapons such as shrapnel and birdshot. They are the result of detailed computer modeling of the human body. Examining them you will find that when a bullet hits bone, the EPEN required for further penetration increases dramatically. This accounts for the bone deflecting under the impact, as the bullet both penetrates and deforms it. If the impact is great enough, the bone will shatter under the load and the bullet will continue. The Damage Tables model such impacts and account for the bone fragments and additional damage following bone fracture.

A bullet hitting bone with insufficient impact to penetrate will either deflect off the bone or become lodged. The basic tables assume that the bullet becomes lodged. To account for bullet deflection within the body requires statistical modeling of the deflection path and the inclusion of more tables than can be reasonably included in this supplement. To approximate this effect for limb bones and ribs, the following rules may be used.

Limb Bones

When a bullet hits a limb bone with EPEN less than required to fully penetrate it, there is an 80% chance it will be deflected off the bone. If it is, find the penetration depth against the bone normally and determine the excess EPEN over the EPEN for that column. As an example, look at Table 36, an EPEN of 3.2 would penetrate to the EPEN 2.3 column and have $3.2 - 2.3 = 1.1$ EPEN left. To account for bullet deflection off the bone and through the leg take this 1.1 EPEN and go to the corresponding Flesh Hit Location Table (in this case, Table 35) and enter with this EPEN. Add the corresponding damage to that inflicted on the bone table for Total PD. Here, $14 + 27 = 41$ PD for a DC = 3.

Ribs

When a projectile whose EPEN is under 1.1 hits a Rib, it will partially deflect off the rib and continue into the target rather than lodge. To model this, roll a 0-9 number and multiply by .05. Add this number to the bullet's EPEN and enter the table to determine damage normally. This correction factor accounts for the bullet deflecting off the rib and continuing into the target. Note that on such a hit, no Shock Damage should be applied as the bone has not been broken.

Example: A target hit in the Rib - Liver (Table 22) by a bullet with EPEN = .9 and DC = 2 would take damage as from an EPEN = .9 plus 0-9 roll times .05. If a 6 were rolled, the EPEN would be $.9 + 6 \times .05 = .9 + .3 = 1.2$. The PD done would be 53 points.

"Don't think of it
as Murder. Think
of it as Involuntary
Euthanasia."

Gil the Treacherous

HIT LOCATION DIAGRAM

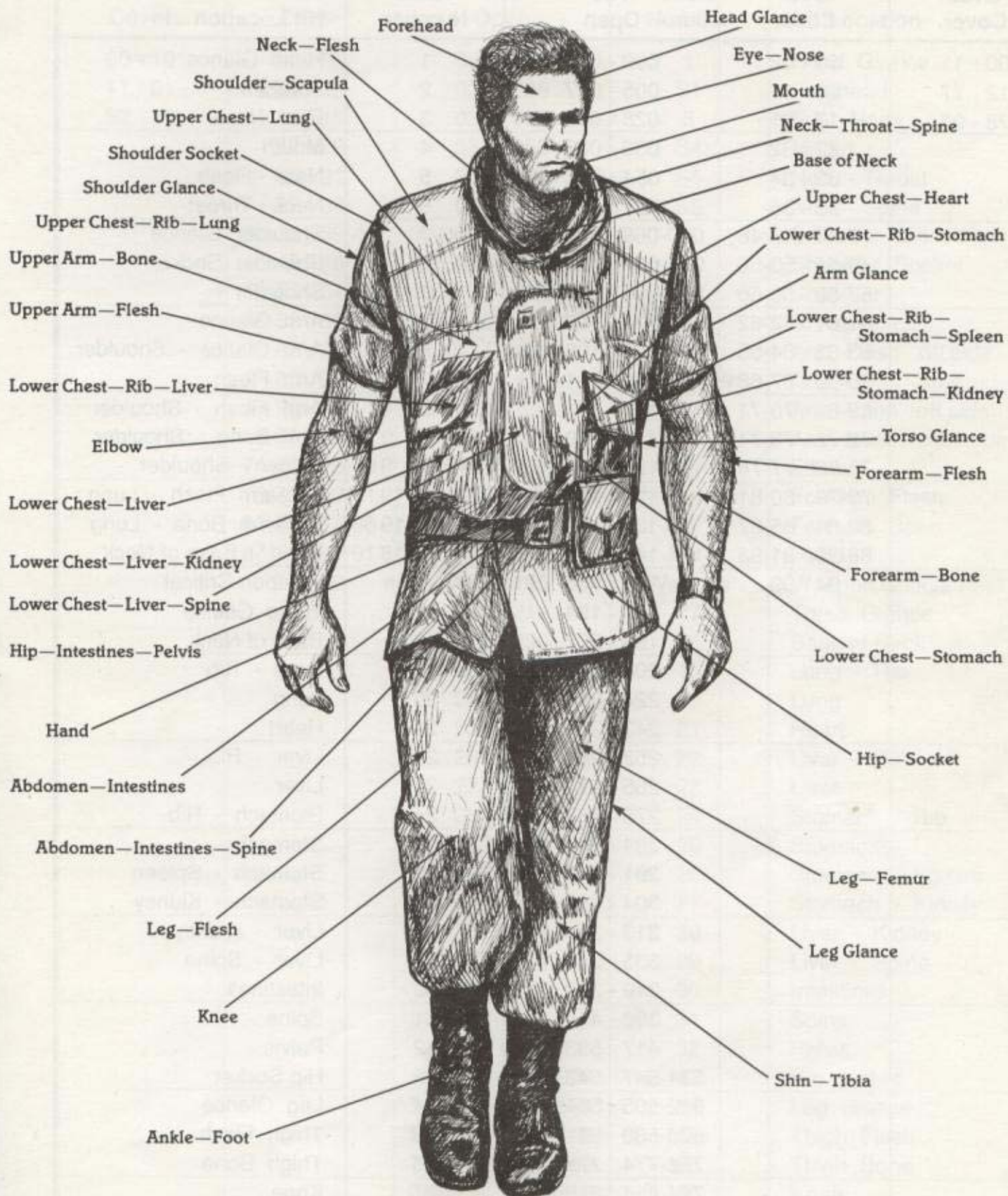


Figure 1

FRONT - REAR HIT LOCATION TABLE / 1A

Looking Over Cover	Firing Over Cover	In The Open	Damage Table Number	Hit Location
00 - 11	00 - 02	000 - 004	1	Head Glance
12 - 77	03 - 16	005 - 027	2	Forehead
78 - 99	17 - 21	028 - 035	3	Eye - Nose
	22 - 32	036 - 053	4	Mouth
	33 - 34	054 - 056	5	Neck - Flesh
	35 - 36	057 - 059	6	Neck - Throat
	37-42 43-48	060-069 070-080	7	Shoulder Glance
	49-52 53-56	081-087 088-094	8	Shoulder Socket
	57-58 59-60	095-097 098-100	9	Shoulder
	61-61 62-62	101-101 102-103	10	Arm Glance
	63-63 64-65	104-105 106-108	10 & 9	Arm Glance - Shoulder
	66-66 67-68	109-110 111-113	11	Arm Flesh
	69-69 70-71	114-115 116-117	11 & 9	Arm Flesh - Shoulder
	72-72 73-74	118-119 120-121	12 & 9	Arm Bone - Shoulder
	75-76 77-78	122-124 125-128	13 & 9	Elbow - Shoulder
	79-79 80-81	129-130 131-132	14 & 19	Forearm Flesh - Lung
	82-84 85-87	133-137 138-143	15 & 19	Forearm Bone - Lung
	88-90 91-93	144-148 149-154	16 & 18	Hand - Base of Neck
	94 - 99	155 - 166	Weapon	Weapon Critical
		167 - 194	17	Torso Glance
		195 - 207	18	Base of Neck
		208 - 223	19	Lung - Rib
		224 - 241	20	Lung
		242 - 251	21	Heart
		252 - 264	22	Liver - Rib
		265 - 272	23	Liver
		273 - 283	24	Stomach - Rib
		284 - 290	25	Stomach
		291 - 303	26	Stomach - Spleen
		304 - 312	27	Stomach - Kidney
		313 - 334	28	Liver - Kidney
		335 - 348	29	Liver - Spine
		349 - 389	30	Intestines
		390 - 416	31	Spine
		417 - 533	32	Pelvis
		534-547 548-561	33	Hip Socket
		562-583 584-605	34	Leg Glance
		606-680 681-755	35	Thigh Flesh
		756-774 775-793	36	Thigh Bone
		794-814 815-835	37	Knee
		836-855 856-876	38	Shin Flesh
		877-905 906-935	39	Shin Bone
		936-967 968-999	40	Foot

Looking Over Cover	Firing Over Cover	In The Open	Damage Table Number	Hit Location
00 - 10	00 - 02	000 - 005	1	Head Glance
11 - 81	03 - 15	006 - 029	S1	Forehead
82 - 99	16 - 19	030 - 037	3	Eye - Nose
	20 - 29	038 - 055	S4	Mouth
	30 - 31	056 - 059	S5	Neck - Throat
	32 - 33	060 - 063	S6	Neck - Spine
	34-38 39-44	064-073 074-084	7	Shoulder Glance
	45-48 49-52	085-091 092-099	8	Shoulder Socket
	53-53 54-55	100-101 102-104	9	Shoulder
	56-58 59-61	105-110 111-116	10	Arm Glance
	62 - 65	117 - 123	11	Arm Flesh off side
	66 - 69	124 - 131	11 & 19	Arm Flesh shot side
	70 - 71	132 - 134	12	Arm Bone off side
	72 - 73	135 - 138	12 & 19	Arm Bone shot side
	74-75 76-78	139-143 144-148	13	Elbow
	79-79 80-81	149-150 151-153	14	Forearm Flesh
	82-83 84-86	154-161 162-170	15	Forearm Bone
	87-88 89-91	171-174 175-179	16	Hand
	92 - 99	180 - 195	Weapon	Weapon Critical
		196 - 219	17	Torso Glance
		220 - 230	18	Base of Neck
		231 - 243	19	Lung - Rib
		244 - 258	20	Lung
		259 - 266	21	Heart
		267 - 276	22	Liver - Rib
		277 - 283	23	Liver
		284 - 292	24	Stomach - Rib
		293 - 298	25	Stomach
		299 - 308	26	Stomach - Spleen
		309 - 316	27	Stomach - Kidney
		317 - 334	28	Liver - Kidney
		335 - 345	29	Liver - Spine
		346 - 379	30	Intestines
		380 - 401	31	Spine
		402 - 498	32	Pelvis
		499-509 510-520	33	Hip Socket
		521-544 545-568	34	Leg Glance
		569-642 643-716	35	Thigh Flesh
		717-738 739-760	36	Thigh Bone
		761-794 795-828	37	Knee
		829-840 841-852	S23	Shin Flesh
		853-892 893-932	S24	Shin Bone
		933-965 966-999	40	Foot

SIDE HIT LOCATION TABLE / 1C

Looking Over Cover	Firing Over Cover	In The Open	Damage Table Number	Hit Location
00 - 11	00 - 02	000 - 005	1	Head Glance
12 - 87	03 - 14	006 - 031	S1	Skull
88 - 99	15 - 16	032 - 035	S2	Eye
	17 - 24	036 - 052	S3	Jaw
	25 - 32	053 - 068	S4	Base of Skull
	33 - 34	069 - 073	S5	Neck - Throat
	35 - 36	074 - 077	S6	Neck - Spine
	37 - 40	078 - 085	7	Shoulder Glance
	41 - 47	086 - 100	S7	Shoulder Socket - Lung
	48 - 51	101 - 108	S8	Shoulder Socket - Spine
	52 - 58	109-115 116-123	10	Arm Glance
	59 - 62	124-127 128-131	11	Arm Flesh
	63 - 68	132-137 138-144	12	Arm Bone
	69 - 76	145-152 153-161	13	Elbow
	77 - 79	162-164 165-167	14	Forearm Flesh
	80 - 89	168-177 178-188	15	Forearm Bone
	90 - 90	189-190 191-192	16	Hand
	91 - 93	193 - 197	16 & Weap	Hand - Weapon Critical
	94 - 99	198 - 209	Weapon	Weapon Critical
		210 - 234	17	Torso Glance
		235 - 249	S9	Lung - Rib
		250 - 261	S10	Lung
		262 - 263	S11	Heart - Rib
		264 - 265	S12	Heart
		266 - 269	S13	Spine
		270 - 287	S14	Stomach - Liver - Rib
		288 - 304	S15	Stomach - Liver
		305 - 316	S16	Spleen - Liver
		317 - 329	S17	Kidney - Spine
		330 - 356	S18	Intestines
		357 - 371	S19	Intestines - Spine
		372 - 427	S20	Pelvis
		428 - 445	S21	Hip - Spine
		446 - 460	S22	Hip Socket
		461-484 485-514	34	Leg Glance
		515-591 592-638	35	Thigh Flesh
		639 - 668	35 & 35	Thigh Flesh - Thigh Flesh
		669 - 680	35 & 36	Thigh Flesh - Thigh Bone
		681-706 707-744	36	Thigh Bone
		745-782 783-820	37	Knee
		821-859 860-898	S23	Shin Flesh
		899-917 918-937	S24	Shin Bone
		938-968 969-999	40	Foot

1 HEAD GLANCE

DC 10	164	423	783	12H	18H	24H	31H	39H	48H	58H	76H	84H
DC 9	76	197	364	576	830	11H	15H	18H	22H	27H	36H	39H
DC 8	35	90	166	263	379	514	666	835	10H	12H	16H	18H
DC 7	20	51	94	148	214	289	375	471	576	690	914	10H
DC 6	8	22	40	64	92	124	161	202	247	296	392	433
DC 5	6	15	27	43	61	83	108	135	165	198	263	289
DC 4	3	9	16	25	37	50	64	81	99	118	156	172
DC 3	2	4	8	12	18	24	31	39	47	57	75	83
DC 2		1	2	4	5	7	9	11	14	16	22	24
DC 1			1	1	1	2	3	3	4	5	6	7

10

20

EPEN .1 .2 .3 .4 .6 .7 .8 .9 1.0 1.1 1.2 1.3

XXXXXXXXX----- Graze Skull -----XXXXXXXXX

2 FOREHEAD

DC 10	22	29K	20T	72T	74T	79T	83T	88T	93T	98T	10X	11X	11X	12X	12X	13X	13X	14X	14X	15X	15X	15X
DC 9	15	19K	13T	47T	49T	52T	55T	58T	62T	65T	66T	70T	73T	77T	81T	84T	86T	90T	94T	96T	96T	97T
DC 8	9	11K	79K	28T	29T	31T	32T	34T	36T	38T	39T	41T	43T	45T	48T	50T	51T	53T	56T	57T	57T	57T
DC 7	5	65H	46K	16T	17T	18T	19T	20T	21T	22T	23T	24T	25T	26T	28T	29T	29T	31T	32T	33T	33T	33T
DC 6	2	28H	20K	69K	71K	76K	80K	85K	90K	95K	97K	10T	11T	11T	12T	12T	13T	13T	14T	14T	14T	14T
DC 5	1	19H	13K	46K	48K	51K	54K	57K	60K	63K	65K	68K	71K	75K	79K	82K	84K	88K	92K	94K	94K	95K
DC 4	1	11H	78H	28K	28K	30K	32K	34K	36K	38K	39K	41K	43K	45K	47K	49K	50K	53K	55K	56K	56K	56K
DC 3	1	539	38H	13K	14K	15K	15K	16K	17K	18K	19K	20K	21K	22K	23K	24K	24K	25K	27K	27K	27K	27K
DC 2	1	155	11H	38H	39H	42H	44H	47H	50H	52H	53H	56H	59H	62H	65H	68H	69H	73H	76H	78H	78H	78H
DC 1	1	44	310	11H	11H	12H	13H	13H	14H	15H	15H	16H	17H	18H	19H	20H	20H	21H	22H	22H	22H	22H

10 20

40

EPEN .4 .7 .8 .9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.8 3.2

XX Sk ----- Brain ----- Sk XXX

3 EYE - NOSE

DC 10	578	17H	24H	79T	84T	88T	92T	99T	10X	11X	11X	12X	14X	16X	18X	21X	23X	24X	24X
DC 9	339	977	14H	46T	49T	52T	54T	58T	61T	63T	67T	70T	80T	91T	10X	12X	13X	14X	14X
DC 8	185	533	765	25T	27T	28T	29T	32T	33T	35T	36T	38T	43T	50T	57T	66T	73T	77T	77T
DC 7	106	306	439	14T	15T	16T	17T	18T	19T	20T	21T	22T	25T	29T	33T	38T	42T	44T	44T
DC 6	46	131	188	62K	66K	70K	72K	78K	82K	85K	89K	94K	11T	12T	14T	16T	18T	19T	19T
DC 5	31	88	126	42K	44K	47K	48K	52K	55K	57K	60K	63K	72K	82K	93K	11T	12T	13T	13T
DC 4	18	52	75	25K	26K	28K	29K	31K	33K	34K	36K	37K	43K	49K	56K	64K	72K	76K	76K
DC 3	9	25	36	12K	13K	13K	14K	15K	16K	16K	17K	18K	21K	24K	27K	31K	35K	37K	37K
DC 2	3	7	10	34H	36H	38H	40H	43H	45H	47H	49H	52H	59H	68H	77H	89H	10K	11K	11K
DC 1	1	2	3	986	10H	11H	11H	12H	13H	14H	14H	15H	17H	19H	22H	26H	29H	30H	30H

10 40 50 80

100

EPEN .1 .2 .3 .6 .7 .8 .9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.4

----- Eye ----- Sk ----- Brain ----- Sk X

4 MOUTH

DC 10	13	36	80	80	80	80	80	80	80	80	80	398	917	16H	20H	24H	29H	36K	12T	16T	18T	18T	18T	18T
DC 9	4	21	47	47	47	47	47	47	47	47	47	233	538	950	12H	14H	17H	21K	72K	96K	10T	10T	11T	11T
DC 8	2	11	25	25	25	25	25	25	25	25	25	127	293	518	651	780	933	11K	39K	52K	56K	57K	58K	58K
DC 7	1	7	15	15	15	15	15	15	15	15	15	73	168	298	374	448	536	66H	23K	30K	32K	33K	33K	33K
DC 6	1	3	6	6	6	6	6	6	6	6	6	31	72	128	160	192	230	28H	97H	13K	14K	14K	14K	14K
DC 5		2	4	4	4	4	4	4	4	4	4	21	48	85	107	129	154	19H	65H	86H	93H	94H	96H	96H
DC 4		1	2	2	2	2	2	2	2	2	2	12	29	51	64	77	92	11H	39H	51H	55H	56H	57H	57H
DC 3		1	1	1	1	1	1	1	1	1	1	6	14	25	31	37	44	543	19H	25H	27H	27H	28H	28H
DC 2												2	4	7	9	11	13	156	536	712	765	778	792	801
DC 1												1	1	2	3	3	4	45	154	204	220	223	227	230

10

55 410

EPEN .1 .2 .4 .4 .4 .4 .4 .4 .4 .4 .4 .5 .6 .7 .8 1.1 1.9 2.0 2.1 2.2 2.5 3.3 3.4 3.5

XX-- Teeth ----- Mouth ----- Throat ----- Spine ----- XXXXXX

5 NECK - FLESH

DC 10	21	52	96	151	216	313	401	499	578
DC 9	10	25	46	73	104	151	193	241	279
DC 8	5	12	22	35	50	73	93	116	132
DC 7	3	7	13	21	30	43	56	69	79
DC 6	1	3	6	10	14	21	27	33	39
DC 5	1	3	5	7	10	15	19	24	29
DC 4	1	2	3	5	7	10	13	16	19
DC 3	1	1	2	3	4	6	8	10	11
DC 2		1	1	1	2	3	4	5	5
DC 1			1	1	1	1	1	1	1

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

6 NECK - THROAT - SPINE

DC 10	195	594	12H	19H	28H	32H	34H	12K	75K	13T	17T	18T	18T	18T	18T
DC 9	114	349	691	11H	17H	19H	20H	71H	44K	78K	10T	10T	10T	11T	11T
DC 8	64	194	384	630	928	10H	11H	39H	24K	43K	57K	57K	58K	60K	60K
DC 7	37	114	226	370	545	610	648	23H	14K	25K	33K	34K	34K	35K	35K
DC 6	16	49	97	159	234	262	278	989	62H	11K	14K	14K	15K	15K	15K
DC 5	11	33	65	106	156	175	186	662	41H	73H	96H	97H	98H	10K	10K
DC 4	6	20	39	63	93	104	111	394	25H	44H	57H	58H	58H	60H	60H
DC 3	3	9	19	31	45	50	53	190	12H	21H	27H	28H	28H	29H	29H
DC 2	1	3	5	9	13	14	15	55	341	604	789	799	808	836	844
DC 1		1	2	3	4	4	4	16	98	173	226	230	232	240	242

10 20 30 120 430

EPEN .1 .2 .3 .4 .5 .6 .9 1.7 1.8 1.9 2.0 2.6 3.1 3.2 3.3

XXXX----- Throat -----XXX----- Spine -----XXXXXX

7 SHOULDER - GLANCE

DC 10	4	9	17	26	32
DC 9	2	6	11	18	22
DC 8	2	4	8	12	15
DC 7	1	3	6	9	11
DC 6	1	2	4	6	7
DC 5	1	2	3	5	6
DC 4	1	1	2	4	5
DC 3		1	2	3	3
DC 2		1	1	1	2
DC 1			1	1	1

EPEN .1 .2 .3 .4 .5

XXXXXXXXXXXXXXXXXXXX

8 SHOULDER - SOCKET

DC 10	15	39	46	80	121	170	227	361	439	522	613	10H	10H
DC 9	9	24	28	49	74	104	139	221	268	320	375	10H	10H
DC 8	6	15	18	31	47	67	89	141	172	204	240	918	10H
DC 7	4	11	13	23	35	49	65	104	126	151	177	676	10H
DC 6	3	7	9	15	23	32	43	68	82	98	115	441	10H
DC 5	2	6	7	12	18	25	33	53	64	77	90	344	842
DC 4	1	3	4	7	11	15	21	33	40	47	55	212	519
DC 3	1	2	2	3	5	7	10	16	19	23	27	102	250
DC 2		1	1	1	2	2	3	5	5	7	8	29	72
DC 1			1	1	1	1	1	1	2	2	2	8	21

5 10 15 20 30 40 45 50 100

EPEN .1 .2 .3 .9 1.5 2.1 2.8 4.0 4.6 5.3 5.9 11 12

XXXXXXXXXXXX----- Humerus -----XXXX

9 SHOULDER - SCAPULA

DC 10	47	98	189	340	488	659	904	11H	14H	16H	17H	22H	32H	34H
DC 9	25	51	99	177	254	343	471	586	746	842	906	11H	17H	18H
DC 8	13	26	51	92	132	179	256	305	388	439	472	584	859	936
DC 7	8	16	32	57	81	110	151	188	238	269	290	359	528	574
DC 6	3	7	14	25	36	49	67	84	106	120	129	160	235	256
DC 5	2	5	9	17	24	33	45	56	71	80	86	107	157	171
DC 4	1	3	6	10	14	20	27	33	42	48	51	64	94	102
DC 3	1	1	3	5	7	9	13	16	20	23	25	31	45	49
DC 2		1	1	1	2	3	4	5	6	7	7	9	13	14
DC 1			1	1	1	1	1	1	2	2	2	3	4	4

5

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.2 1.4 1.7 1.8 1.9

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX Scapula XXXXXXXX

10 ARM GLANCE

DC 10	4	9	17	26	32
DC 9	2	6	11	18	22
DC 8	2	4	8	12	15
DC 7	1	3	6	9	11
DC 6	1	2	4	6	7
DC 5	1	2	3	5	6
DC 4	1	1	2	4	5
DC 3		1	2	3	3
DC 2		1	1	1	2
DC 1			1	1	1

EPEN .1 .2 .3 .4 .5

XXXXXXXXXXXXXXXXXXXX

11 UPPER ARM - FLESH

DC 10	68	100	100	100	100	100
DC 9	32	79	100	100	100	100
DC 8	14	36	66	100	100	100
DC 7	8	20	37	59	84	100
DC 6	3	9	16	25	36	46
DC 5	2	6	11	17	24	31
DC 4	1	3	6	10	14	18
DC 3	1	2	3	5	7	9
DC 2		1	1	1	2	3
DC 1			1	1	1	1

EPEN .1 .2 .3 .4 .5 .6

XXXXXXXXXXXXXXXXXXXX

12 UPPER ARM - BONE

DC 10	68	120	120	120	120	120	120	120	120	120	120	120
DC 9	32	79	120	120	120	120	120	120	120	120	120	120
DC 8	14	36	58	81	107	120	120	120	120	120	120	120
DC 7	8	20	33	46	60	77	95	115	120	120	120	120
DC 6	3	9	14	20	26	33	41	49	120	120	120	120
DC 5	2	6	9	13	17	22	27	33	85	120	120	120
DC 4	1	3	6	8	10	13	16	20	51	78	111	120
DC 3	1	2	3	4	5	6	8	9	24	38	53	71
DC 2		1	1	1	1	2	2	3	7	11	15	21
DC 1			1	1	1	1	1	1	2	3	4	6

5 10 15 20 30

EPEN .1 .2 .3 .7 1.0 1.4 1.7 2.1 3.8 4.0 4.1 4.2

XXXXXXXXXXXX- - - - - Humerus - - - - -XXXXXXXXXXXXXXXX

13 ELBOW

DC 10	20	43	74	112	120	120	120	120	120	120	120	120	120	120	120	120	120
DC 9	9	20	34	52	73	120	120	120	120	120	120	120	120	120	120	120	120
DC 8	4	9	16	24	34	120	120	120	120	120	120	120	120	120	120	120	120
DC 7	2	5	9	13	19	93	120	120	120	120	120	120	120	120	120	120	120
DC 6	1	2	4	6	8	40	85	112	117	120	120	120	120	120	120	120	120
DC 5	1	1	3	4	5	27	57	75	78	82	85	89	92	96	100	103	119
DC 4	1	1	2	2	3	16	34	45	47	49	51	53	55	57	59	62	71
DC 3	1	1	1	1	2	8	16	22	23	23	24	25	26	28	29	30	34
DC 2		1	1	1	1	2	5	6	6	7	7	7	8	8	8	9	10
DC 1			1	1	1	1	1	2	2	2	2	2	2	2	2	2	3

5 10 15 20

EPEN .1 .2 .4 .5 .7 .9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0 2.1

XXXXX----- Elbow Joint ----- XXXXXX

14 FOREARM - FLESH

DC 10	50	50	50	50	50
DC 9	32	50	50	50	50
DC 8	14	36	50	50	50
DC 7	8	20	34	50	50
DC 6	3	9	16	25	31
DC 5	2	6	11	17	20
DC 4	1	3	6	10	12
DC 3	1	2	3	5	6
DC 2		1	1	1	2
DC 1			1	1	1

EPEN .1 .2 .3 .4 .5

XXXXXXXXXXXXXXXXXXXXX

15 FOREARM - BONE

DC 10	60	60	60	60	60	60	60	60	60	60	60	60
DC 9	32	60	60	60	60	60	60	60	60	60	60	60
DC 8	14	30	45	60	60	60	60	60	60	60	60	60
DC 7	8	17	25	35	47	59	60	60	60	60	60	60
DC 6	3	7	11	15	20	25	60	60	60	60	60	60
DC 5	2	5	7	10	13	17	43	60	60	60	60	60
DC 4	1	3	4	6	8	10	25	46	60	60	60	60
DC 3	1	1	2	3	4	5	12	22	35	50	60	60
DC 2		1	1	1	1	1	4	6	10	14	18	20
DC 1			1	1	1	1	1	2	3	4	5	5

5 6 8 10

EPEN .1 .2 .5 .8 1.1 1.3 2.4 2.5 2.6 2.7 2.8 2.9

XXXXXXX----- Radius ----- XXXXXXXXXXXXXXXXX

16 HAND

DC 10	9	15	15	15	15
DC 9	4	9	15	15	15
DC 8	2	4	7	15	15
DC 7	1	2	4	14	15
DC 6		1	2	6	12
DC 5		1	1	4	8
DC 4			1	2	5
DC 3				1	2
DC 2					1
DC 1					1

5

EPEN .1 .2 .3 .4 .5 .6

XXX Metacarpals XXXXXXXXX

17 TORSO GLANCE

DC 10	4	9	17	26	38	47
DC 9	2	6	11	18	26	32
DC 8	2	4	8	12	17	22
DC 7	1	3	6	9	13	16
DC 6	1	2	4	6	9	11
DC 5	1	2	3	5	7	9
DC 4	1	1	2	4	5	7
DC 3		1	2	3	4	5
DC 2		1	1	1	2	3
DC 1			1	1	1	1

EPEN .1 .2 .3 .4 .5 .6

XXXXXXXXXXXXXXXXXXXXXXX

18 BASE OF NECK

DC 10	9	30	715	27H	44H	61H	71H	78H	23K	13T	24T	29T	29T	29T	30T	31T
DC 9	4	14	333	12H	21H	29H	33H	36H	11K	59K	11T	13T	14T	14T	14T	14T
DC 8	2	6	152	569	944	13H	15H	17H	48H	27K	51K	61K	62K	62K	64K	66K
DC 7	1	4	86	321	532	734	846	937	27H	15K	29K	35K	35K	35K	36K	37K
DC 6	1	2	37	138	228	315	363	402	12H	66H	12K	15K	15K	15K	16K	16K
DC 5	1	1	25	92	153	211	243	269	780	44H	82H	99H	10K	10K	10K	11K
DC 4	1	1	15	55	91	126	145	160	465	26H	49H	59H	60H	60H	62H	64H
DC 3	1	1	7	26	44	61	70	77	224	13H	24H	29H	29H	29H	30H	31H
DC 2		1	2	8	13	17	20	22	64	362	676	820	825	831	861	891
DC 1			1	2	4	5	6	6	18	104	194	235	237	239	247	255

10

230 410

EPEN .1 .2 .8 .9 1.0 1.1 1.2 1.8 2.3 2.4 2.5 2.6 2.9 3.2 3.8 3.9

XXXXX Sternum XX--- Windpipe ----// Spine //XXX

19 UPPER CHEST - RIB - LUNG

DC 10	4	11	16	32	22H	22H	22H	26H	28H
DC 9	2	6	9	17	12H	12H	12H	14H	15H
DC 8	1	3	5	9	618	618	632	729	795
DC 7	1	2	3	6	406	406	417	481	525
DC 6	1	1	2	3	237	237	243	280	305
DC 5	1	1	1	3	190	190	194	224	244
DC 4	1	1	1	2	147	147	150	173	189
DC 3	1	1	1	2	109	109	111	129	140
DC 2		1	1	1	76	76	78	90	98
DC 1				1	62	62	63	73	79

10

20

EPEN .1 .2 .4 1.0 1.1 1.1 1.3 2.0 2.1

XXXXXXXX Rib -- Lung --XX Rib XXX

20 UPPER CHEST - LUNG

DC 10	4	14	13H	13H	13H	16H	18H
DC 9	2	7	679	679	699	844	944
DC 8	1	4	365	365	375	453	507
DC 7	1	3	241	241	248	299	334
DC 6	1	2	140	140	144	174	195
DC 5	1	1	112	112	115	139	156
DC 4	1	1	87	87	89	108	120
DC 3	1	1	64	64	66	80	89
DC 2		1	45	45	46	56	62
DC 1			36	36	37	45	51

10

EPEN .1 .2 .3 .3 .5 1.2 1.3

XXXXXX--- Lung ---XX Rib XXX

21 UPPER CHEST - HEART

DC 10	9	30	11K	17T	30X	33X	35X	35X	36X	43X	48X	49X	50X	50X	50X	50X
DC 9	4	14	52H	80K	14X	15X	16X	16X	17X	20X	22X	23X	23X	23X	23X	23X
DC 8	2	6	24H	37K	64T	70T	74T	74T	78T	91T	10X	11X	11X	11X	11X	11X
DC 7	1	4	13H	21K	36T	40T	41T	42T	44T	52T	57T	59T	59T	59T	60T	60T
DC 6	1	2	57S	88H	15T	17T	18T	18T	19T	22T	25T	25T	25T	26T	26T	26T
DC 5	1	1	38S	59H	10T	11T	12T	12T	13T	15T	16T	17T	17T	17T	17T	17T
DC 4	1	1	229	35H	62K	68K	71K	71K	75K	88K	98K	10T	10T	10T	10T	10T
DC 3	1	1	110	17H	30K	33K	34K	34K	36K	42K	47K	49K	49K	49K	49K	50K
DC 2		1	32	487	85H	94H	99H	99H	10K	12K	14K	14K	14K	14K	14K	14K
DC 1			9	140	25H	27H	28H	28H	30H	35H	39H	40H	40H	40H	41H	41H

10**230 410**

EPEN .1 .2 .8 .9 1.0 1.1 1.2 1.8 2.3 2.4 2.5 2.6 2.9 3.2 3.8 3.9

XXXX Sternum ----- Heart ----- Spine ----- XXXX

22 LOWER CHEST - RIB - LIVER

DC 10	54	125	12H	60H	10K	15K	21K	27K	32K	39K	39K	40K	43K	48K
DC 9	30	70	69S	34H	59H	84H	12K	15K	18K	22K	22K	23K	24K	27K
DC 8	14	34	331	16H	28H	40H	57H	73H	86H	10K	11K	11K	12K	13K
DC 7	8	19	187	90S	16H	22H	32H	41H	48H	59H	60H	61H	65H	73H
DC 6	3	8	80	388	680	964	14H	18H	21H	25H	26H	26H	28H	31H
DC 5	2	5	54	260	45S	64S	923	12H	14H	17H	17H	18H	19H	21H
DC 4	1	3	32	15S	271	384	550	701	82S	10H	10H	10H	11H	12H
DC 3	1	2	15	7S	131	18S	26S	338	398	488	491	50S	538	599
DC 2		1	4	21	38	53	76	97	114	140	141	14S	15S	172
DC 1		1	1	6	11	1S	22	28	33	40	41	42	44	49

10**20**

EPEN .1 .5 .9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 2.0 2.4 2.5

XXXXXX Rib ----- Liver ----- Rib XXXX

23 LOWER CHEST - LIVER

DC 10	54	112	916	27H	46H	96H	13K	19K	24K	26K	27K	28K	30K	34K
DC 9	30	63	517	15H	26H	54H	72H	11K	14K	15K	15K	16K	17K	19K
DC 8	14	30	246	729	12H	26H	34H	50H	65H	71H	73H	75H	81H	90H
DC 7	8	17	139	411	69S	15H	19H	28H	37H	40H	41H	42H	46H	51H
DC 6	3	7	60	176	298	624	826	12H	16H	17H	18H	19H	20H	22H
DC 5	2	5	40	118	200	418	553	814	11H	11H	12H	12H	13H	15H
DC 4	1	3	24	70	119	249	319	48S	629	680	708	721	783	868
DC 3	1	1	11	34	57	120	159	234	303	328	339	348	377	418
DC 2		1	3	10	16	34	46	67	87	94	97	100	108	120
DC 1			1	3	5	10	13	19	2S	27	28	29	31	3S

10

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.4 1.7 1.8 1.9

XXXXXXXXXXXX ----- Liver ----- Rib XXXXXXXX

24 LOWER CHEST - RIB - STOMACH

DC 10	9	21	108	289	472	647	899	11H	13H	16H	16H	17H	20H	24H
DC 9	5	12	64	172	281	38S	534	670	780	95S	971	10H	12H	15H
DC 8	3	6	34	90	147	201	279	350	408	499	508	538	61S	759
DC 7	2	4	21	56	91	12S	174	218	254	311	316	33S	383	472
DC 6	1	2	11	29	48	66	91	114	133	163	16S	17S	200	247
DC 5	1	2	8	22	36	50	63	86	100	123	12S	133	151	187
DC 4	1	1	6	16	26	36	49	62	72	88	90	9S	109	134
DC 3	1	1	4	11	17	24	33	41	48	59	60	63	72	89
DC 2		1	2	6	10	14	19	24	28	3S	36	37	43	53
DC 1		1	2	4	7	10	14	17	20	2S	26	27	31	38

10**20**

EPEN .1 .5 .9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 2.0 2.4 2.5

XXXXX Rib ----- Stomach ----- Rib XXXXX

25 LOWER CHEST - STOMACH

DC 10	9	19	70	154	236	445	570	810	10H	11H	12H	13H	15H	18H
DC 9	5	11	41	92	140	264	339	481	611	673	723	760	895	11H
DC 8	3	6	22	48	73	138	177	252	319	352	378	397	468	570
DC 7	2	4	13	30	46	86	110	157	199	219	235	247	291	355
DC 6	1	2	7	16	24	45	58	82	104	115	123	129	152	186
DC 5	1	1	5	12	18	34	44	62	79	87	93	98	115	140
DC 4	1	1	4	8	13	24	31	44	56	62	67	70	83	101
DC 3	1	1	3	6	9	16	21	30	38	41	44	47	55	67
DC 2		1	2	3	5	10	12	17	22	24	26	28	33	40
DC 1			1	2	4	7	9	13	16	17	19	20	23	28

10

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.4 1.7 1.8 1.9
 XXXXXXXXXXXXXXXX ----- Stomach ----- Rib XXXXXXXX

26 LOWER CHEST - RIB - STOMACH - SPLEEN

DC 10	50	117	609	16H	27H	46H	92H	14K	18K	26K	28K	29K	31K	35K
DC 9	24	55	285	762	12H	21H	43H	65H	85H	12K	13K	13K	14K	16K
DC 8	11	25	132	352	575	991	20H	30H	39H	56H	60H	62H	66H	75H
DC 7	6	14	75	201	328	565	11H	17H	22H	32H	34H	35H	38H	43H
DC 6	3	6	33	88	144	249	501	757	979	14H	15H	15H	17H	19H
DC 5	2	4	22	60	98	169	341	515	666	956	10H	11H	11H	13H
DC 4	1	3	14	37	60	104	209	315	408	585	624	644	694	785
DC 3	1	1	7	19	31	53	106	160	207	297	317	327	353	399
DC 2		1	2	6	10	18	35	53	69	99	106	109	118	133
DC 1		1	1	2	4	7	13	20	26	37	40	41	44	50

10

20

EPEN .1 .5 .9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 2.0 2.4 2.5
 XXXX Rib ---- Stomach ---- / / / / / / / Spleen / / / / / / / Rib XXXX

27 LOWER CHEST - STOMACH - KIDNEY

DC 10	50	104	393	868	13H	59H	97H	18K	26K	33K	34K	34K	37K	40K
DC 9	24	49	184	407	623	28H	45H	84H	12K	15K	16K	16K	17K	19K
DC 8	11	23	85	188	288	13H	21H	39H	56H	71H	73H	75H	80H	88H
DC 7	6	13	48	107	164	727	12H	22H	32H	40H	42H	43H	46H	50H
DC 6	3	6	21	47	72	320	526	968	14H	18H	18H	19H	20H	22H
DC 5	2	4	15	32	49	217	358	659	956	12H	12H	13H	14H	15H
DC 4	1	2	9	20	30	133	219	403	585	741	763	779	836	915
DC 3	1	1	5	10	15	68	111	205	297	377	388	396	425	465
DC 2		1	2	3	5	23	37	68	99	126	129	132	142	155
DC 1			1	1	2	8	14	26	37	47	49	50	53	58

10

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.4 1.7 1.8 1.9
 XXXXXXXXXX -- Stomach --- / / / / / / / Kidney / / / / / / / Rib XXXXXXXX

28 LOWER CHEST - LIVER - KIDNEY

DC 10	68	141	12H	34H	58H	13K	19K	32K	44K	54K	55K	56K	60K	65K
DC 9	32	66	539	16H	27H	59H	88H	15K	20K	25K	26K	26K	28K	30K
DC 8	14	30	246	729	12H	27H	40H	67H	93H	11K	12K	12K	13K	14K
DC 7	8	17	139	411	695	15H	23H	38H	52H	65H	66H	68H	72H	78H
DC 6	3	7	60	176	298	656	974	16H	22H	28H	28H	29H	31H	34H
DC 5	2	5	40	118	200	439	652	11H	15H	19H	19H	19H	21H	22H
DC 4	1	3	24	70	119	262	388	648	896	11H	11H	12H	12H	13H
DC 3	1	1	11	34	57	126	187	312	432	533	547	557	594	644
DC 2		1	3	10	16	36	54	90	124	153	157	160	171	185
DC 1			1	3	5	10	15	26	36	44	45	46	49	53

10

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.4 1.7 1.8 1.9
 XXXXXXXXXX ----- Liver ----- / / / / / Kidney / / / / / Rib XXXXXXXX

29 LOWER CHEST - LIVER - SPINE

DC 10	68	141	12H	34H	58H	12K	14K	14K	33K	11T	26T	32T	32T	32T	34T
DC 9	32	66	539	16H	27H	57H	65H	67H	15K	52K	12T	15T	15T	15T	16T
DC 8	14	30	246	729	12H	26H	30H	31H	69H	24K	56K	68K	68K	69K	72K
DC 7	8	17	139	411	695	15H	17H	17H	39H	13K	32K	38K	38K	39K	41K
DC 6	3	7	60	176	298	624	714	740	17H	58H	14K	16K	16K	17K	17K
DC 5	2	5	40	118	200	418	478	495	11H	39H	91H	11K	11K	11K	12K
DC 4	1	3	24	70	119	249	285	295	668	23H	54H	65H	66H	67H	69H
DC 3	1	1	11	34	57	120	137	142	322	11H	26H	31H	32H	32H	33H
DC 2		1	3	10	16	34	39	41	92	319	752	902	907	922	960
DC 1			1	3	5	10	11	12	27	91	216	259	261	265	276

130 180 400

EPEN .1 .2 .3 .4 .5 .6 1.0 1.2 1.8 1.9 2.0 2.1 2.4 3.2 3.3

XXXXXXXXX----- Liver -----// Spine //XXXX

30 ABDOMEN - INTESTINES

DC 10	8	32	82	173	267	379	542	690	855	10H	11H	12H
DC 9	5	17	45	95	146	207	297	378	468	567	617	666
DC 8	2	9	23	49	75	106	152	194	240	290	316	341
DC 7	1	6	15	31	47	67	96	122	152	183	200	216
DC 6	1	3	8	17	26	36	52	66	82	99	108	116
DC 5	1	2	6	13	20	28	40	51	63	76	83	89
DC 4	1	2	4	9	14	20	29	37	46	56	61	66
DC 3	1	1	3	6	10	14	20	26	32	38	42	45
DC 2		1	2	4	6	9	13	16	20	24	26	28
DC 1		1	1	3	5	7	9	12	15	18	19	21

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.1 1.2

XXXXXXXXX----- Intestines -----XXXXXX

31 ABDOMEN - INTESTINES - SPINE

DC 10	61	232	602	13H	20H	28H	31H	34H	29K	10T	20T	24T	24T	24T	25T
DC 9	28	108	281	593	913	13H	15H	16H	14K	47K	91K	11T	11T	11T	12T
DC 8	13	50	129	272	419	593	665	718	62H	21K	42K	51K	52K	52K	54K
DC 7	7	28	73	154	237	336	377	406	35H	12K	24K	29K	29K	30K	31K
DC 6	3	12	32	67	103	145	163	176	15H	53H	10K	13K	13K	13K	13K
DC 5	2	8	21	45	69	98	110	118	10H	35H	69H	84H	85H	86H	89H
DC 4	1	5	13	27	42	59	66	71	615	21H	41H	51H	51H	52H	54H
DC 3	1	2	6	13	20	29	32	35	302	10H	20H	25H	25H	25H	26H
DC 2		1	2	4	6	9	10	11	92	317	616	754	765	773	801
DC 1			1	1	2	3	3	3	29	101	197	240	244	246	255

90 180 400

EPEN .1 .2 .3 .4 .5 .6 .9 1.2 1.8 1.9 2.0 2.1 2.7 3.2 3.3

XXXXXX- Intestines ----XXX----- Spine -----XXXXX

32 HIP - INTESTINES - PELVIS

DC 10	16	110	213	449	627	981	14H	17H	19H	20H	24H	30H	34H	37H	39H
DC 9	7	53	102	216	302	472	675	812	910	955	11H	15H	16H	18H	19H
DC 8	4	25	49	104	145	227	325	391	438	459	551	705	788	846	906
DC 7	2	15	29	62	86	135	193	232	260	273	328	419	469	503	538
DC 6	1	7	14	30	41	65	93	112	125	131	157	201	225	242	259
DC 5	1	5	10	21	30	47	67	80	90	94	113	145	162	174	186
DC 4	1	3	7	14	20	31	44	53	60	63	75	96	108	116	124
DC 3	1	2	4	8	12	18	26	32	35	37	45	57	64	69	73
DC 2		1	2	4	6	9	13	15	17	18	21	27	30	33	35
DC 1		1	1	2	3	5	7	9	10	10	13	16	18	19	21

20

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.1 1.7 1.8 1.9 2.0 2.1

XXXXXX----- Intestines ----- Pelvis XXXXXXXXXXXXXXXX

33 HIP SOCKET

DC 10	32	58	161	275	582	772	12H	18H	21H	60H	60H
DC 9	19	34	94	161	341	453	717	10H	12H	60H	60H
DC 8	10	19	51	88	186	247	391	564	661	59H	60H
DC 7	6	11	30	51	107	142	225	324	379	34H	43H
DC 6	3	5	13	22	46	61	96	139	163	15H	18H
DC 5	2	3	8	15	31	41	64	93	109	976	12H
DC 4	1	2	5	9	18	24	38	55	65	581	736
DC 3	1	1	2	4	9	12	19	27	31	280	355
DC 2		1	1	1	3	4	5	8	9	80	102
DC 1			1	1	1	1	2	2	3	23	29

5 10 20 30 40 50 60 130

EPEN .1 .2 .9 1.6 3.0 3.6 5.0 6.4 7.1 14 15

XXXXXXX-----Femur-----XXXX

34 LEG GLANCE

DC 10	4	9	17	26	38	47
DC 9	2	6	11	18	26	32
DC 8	2	4	8	12	17	22
DC 7	1	3	6	9	13	16
DC 6	1	2	4	6	9	11
DC 5	1	2	3	5	7	9
DC 4	1	1	2	4	5	7
DC 3		1	2	3	4	5
DC 2		1	1	1	2	3
DC 1			1	1	1	1

EPEN .1 .2 .3 .4 .5 .6

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

35 THIGH - FLESH

DC 10	68	141	312	491	600	600	600	600	600	600	600	600	600
DC 9	32	66	145	228	301	443	600	600	600	600	600	600	600
DC 8	14	30	66	104	138	202	278	345	400	500	587	600	600
DC 7	8	17	37	59	78	114	156	195	226	282	331	397	439
DC 6	3	7	16	25	33	49	67	84	97	121	142	170	188
DC 5	2	5	11	17	22	33	45	56	65	81	95	114	126
DC 4	1	3	6	10	13	20	27	33	39	48	57	68	75
DC 3	1	1	3	5	6	9	13	16	19	23	27	33	36
DC 2		1	1	1	2	3	4	5	5	7	8	9	10
DC 1			1	1	1	1	1	1	2	2	2	3	3

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.1 1.2 1.3 1.4

XX

36 THIGH - BONE

DC 10	68	141	312	491	648	740	740	740	740	740	740	740	740	740
DC 9	32	66	145	228	301	479	655	740	740	740	740	740	740	740
DC 8	14	30	66	104	138	219	299	493	740	740	740	740	740	740
DC 7	8	17	37	59	78	123	169	278	740	740	740	740	740	740
DC 6	3	7	16	25	33	53	72	119	359	549	707	740	740	740
DC 5	2	5	11	17	22	35	48	80	240	368	473	566	624	649
DC 4	1	3	6	10	13	21	29	48	143	219	282	337	372	387
DC 3	1	1	3	5	6	10	14	23	69	106	136	163	179	186
DC 2		1	1	1	2	3	4	7	20	30	39	47	51	54
DC 1			1	1	1	1	1	2	6	9	11	13	15	16

10 20 30 80

EPEN .1 .2 .3 .4 .5 1.4 2.3 4.0 9.2 9.4 9.5 9.6 9.7 9.8 9.9 10

XXXXXXXXXXXXXXXXXXXX-----Femur-----XXXXXXXXXXXXXXXXXXXX

37 KNEE

DC 10	20	43	74	112	158	200	200	200	200	200	200	200	200	200	200	200
DC 9	9	20	34	52	73	200	200	200	200	200	200	200	200	200	200	200
DC 8	4	9	16	24	34	165	200	200	200	200	200	200	200	200	200	200
DC 7	2	5	9	13	19	93	168	200	200	200	200	200	200	200	200	200
DC 6	1	2	4	6	8	40	72	112	117	122	133	143	154	172	190	200
DC 5	1	1	3	4	5	27	48	75	78	82	89	96	103	115	127	140
DC 4	1	1	2	2	3	16	29	45	47	49	53	57	62	68	76	83
DC 3	1	1	1	1	2	8	14	22	23	24	25	28	30	33	36	40
DC 2		1	1	1	1	2	4	6	6	7	7	8	9	9	10	12
DC 1			1	1	1	1	1	2	2	2	2	2	3	3	3	4

EPEN .1 .2 .4 .5 .7 .9 1.0 1.1 1.2 1.3 1.5 1.7 2.0 2.3 2.6 2.9 3.2

XXXX- - - - - Knee Joint - - - - - XX

38 SHIN - FLESH

DC 10	68	100	100	100	100	100
DC 9	32	79	100	100	100	100
DC 8	14	36	66	100	100	100
DC 7	8	20	37	59	84	100
DC 6	3	9	16	25	36	46
DC 5	2	6	11	17	24	31
DC 4	1	3	6	10	14	18
DC 3	1	2	3	5	7	9
DC 2		1	1	1	2	3
DC 1			1	1	1	1

EPEN .1 .2 .3 .4 .5 .6

XXXXXXXXXXXXXXXXXXXXXXX

39 SHIN - BONE

DC 10	71	175	175	175	175	175	175	175	175	175	175	175	175	175
DC 9	33	99	175	175	175	175	175	175	175	175	175	175	175	175
DC 8	15	45	89	175	175	175	175	175	175	175	175	175	175	175
DC 7	9	26	50	121	175	175	175	175	175	175	175	175	175	175
DC 6	4	11	22	52	175	175	175	175	175	175	175	175	175	175
DC 5	2	7	14	35	137	175	175	175	175	175	175	175	175	175
DC 4	1	4	9	21	82	115	153	175	175	175	175	175	175	175
DC 3	1	2	4	10	39	55	74	94	123	132	140	149	158	165
DC 2	1	1	1	3	11	16	21	27	35	38	40	43	45	47
DC 1	1	1	1	1	3	5	6	8	10	11	12	12	13	14

10 15 20 40 80

EPEN .9 1.8 2.6 4.4 8.7 8.8 8.9 9.0 9.1 9.2 9.3 9.4 9.5 9.6

XX- - - - - Tibia - - - - - XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

40 FOOT

DC 10	33	49	68	90	95	95	95	95	95	95	95	95	95
DC 9	15	23	32	42	53	66	95	95	95	95	95	95	95
DC 8	7	10	14	19	24	30	75	84	94	95	95	95	95
DC 7	4	6	8	11	14	17	42	48	53	59	71	84	95
DC 6	2	3	3	5	6	7	18	20	23	25	31	36	42
DC 5	1	2	2	3	4	5	12	14	15	17	20	24	28
DC 4	1	1	1	2	2	3	7	8	9	10	12	14	17
DC 3	1	1	1	1	1	1	3	4	4	5	6	7	8
DC 2		1	1	1	1	1	1	1	1	1	2	2	3
DC 1			1	1	1	1	1	1	1	1	1	1	1

5 10 15 30 40

EPEN .1 .2 .3 .4 .5 .6 1.3 1.4 1.5 1.6 1.8 2.0 2.3 2.6

XXXXXXX- - - - - Metacarpals - - - - - XXXXXXXX

DC 10	12	67	27T	95T	10X	11X	11X	12X	13X	13X	14X	15X	16X	16X	16X	16X	16X
DC 9	8	41	17T	58T	62T	65T	69T	73T	77T	80T	83T	92T	97T	98T	99T	10X	10X
DC 8	4	20	81K	28T	30T	31T	33T	35T	37T	39T	40T	45T	47T	48T	48T	48T	48T
DC 7	2	11	46K	16T	17T	18T	19T	20T	21T	22T	23T	25T	26T	27T	27T	27T	27T
DC 6	1	5	20K	68K	73K	76K	81K	85K	90K	93K	98K	11T	11T	11T	12T	12T	12T
DC 5	1	3	13K	46K	49K	51K	54K	57K	60K	63K	65K	72K	76K	77K	78K	78K	78K
DC 4		2	78H	27K	29K	30K	32K	34K	36K	37K	39K	43K	45K	46K	46K	46K	46K
DC 3		1	38H	13K	14K	15K	16K	16K	17K	18K	19K	21K	22K	22K	22K	22K	22K
DC 2		1	11H	38H	40H	42H	45H	47H	50H	52H	54H	60H	63H	63H	64H	64H	64H
DC 1		1	310	11H	12H	12H	13H	13H	14H	15H	15H	17H	18H	18H	18H	18H	18H
		20														40	
EPEN	.2	.7	.8	.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.8	1.9	2.0	2.2	2.7	2.8
	XXX	Skull								Brain						Skull	XXX

DC	10	6	51H	33K	45K	50K	54K	58K	63K	69K	74K	78K	83K	90K	94K	95T	97K	97K
DC	9	3	26H	17K	23K	25K	28K	29K	32K	35K	38K	40K	42K	46K	48K	48K	49K	49K
DC	8	2	13H	86H	12K	13K	14K	15K	17K	18K	19K	20K	22K	24K	25K	25K	25K	25K
DC	7	1	843	54K	45H	83H	90H	96H	11K	12K	12K	13K	14K	15K	16K	16K	16K	16K
DC	6	1	460	30K	41H	45H	49H	52H	57H	63H	67H	71H	75H	82H	85H	86H	88H	88H
DC	5		356	23K	32H	35H	38H	40H	44H	49H	52H	55H	58H	63H	66H	67H	68H	68H
DC	4		257	17K	23H	25H	28H	29H	32H	35H	38H	40H	42H	46H	48H	48H	49H	49H
DC	3		148	955	13H	15H	16H	17H	18H	20H	22H	23H	24H	26H	27H	28H	28H	28H
DC	2		42	274	346	419	455	482	530	580	621	653	696	753	787	796	810	810
DC	1		12	79	108	120	131	138	152	167	178	188	200	216	226	229	233	233
			20	30	60	70	100						110	140	150	180	200	
EPEN		.2	.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.5	3.0	3.1

XXXX Skull ----- Eye -----///// Nasal Cavity /////----- Eye ----- Skull XXXX

[illegible]

DC 10	9	22	34T	72T	79T	97T	11X	13X	15X	17X	19X	19X	20X	20X	20X	20X
DC 9	6	15	22T	47T	53T	64T	75T	88T	10X	11X	12X	13X	13X	13X	13X	13X
DC 8	4	9	13T	28T	31T	38T	44T	52T	59T	64T	72T	75T	76T	77T	77T	77T
DC 7	2	5	76K	16T	18T	22T	25T	30T	34T	37T	42T	43T	44T	44T	44T	45T
DC 6	1	2	33K	69K	77K	94K	11T	13T	15T	16T	18T	19T	19T	19T	19T	19T
DC 5	1	1	22K	46K	53K	63K	73K	86K	98K	11T	12T	12T	13T	13T	13T	13T
DC 4		1	13K	28K	31K	37K	43K	51K	58K	64K	72K	74K	76K	76K	76K	76K
DC 3		1	43H	13K	15K	18K	21K	25K	28K	31K	35K	36K	36K	37K	37K	37K
DC 2		1	18H	38H	42H	52H	60H	71H	81H	88H	99H	10K	10K	11K	11K	11K
DC 1		1	518	11H	12H	15H	17H	20H	23H	25H	28H	29H	30H	30H	30H	30H
		10	20											30	40	
EPEN	.2	.4	.8	.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	2.2	2.5	2.6
	XXXX	Skull	----- Brain -----										Skull	XXXX		

S 1 SKULL

DC 10	12	67	27T	95T	10X	11X	11X	12X	13X	13X	14X	15X	16X	16X	16X	16X	16X
DC 9	8	41	17T	58T	62T	65T	69T	73T	77T	80T	83T	92T	97T	98T	99T	10X	10X
DC 8	4	20	81K	28T	30T	31T	33T	35T	37T	39T	40T	45T	47T	47T	48T	48T	48T
DC 7	2	11	46K	16T	17T	18T	19T	20T	21T	22T	23T	25T	26T	27T	27T	27T	27T
DC 6	1	5	20K	68K	73K	76K	81K	85K	90K	93K	98K	11T	11T	11T	12T	12T	12T
DC 5	1	3	13K	46K	49K	51K	54K	57K	60K	63K	65K	72K	76K	77K	78K	78K	78K
DC 4		2	78H	27K	29K	30K	32K	34K	36K	37K	39K	43K	45K	46K	46K	46K	46K
DC 3		1	38H	13K	14K	15K	16K	16K	17K	18K	19K	21K	22K	22K	22K	22K	22K
DC 2		1	11H	38H	40H	42H	45H	47H	50H	52H	54H	60H	63H	63H	64H	64H	64H
DC 1		1	310	11H	12H	12H	13H	13H	14H	15H	15H	17H	18H	18H	18H	18H	18H
		20														40	
EPEN	.2	.7	.8	.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.8	1.9	2.0	2.2	2.7	2.8
	XXX	Skull	-----						Brain	-----						Skull	XXX

S 2 EYE

[illegible]

S 3 JAW

[illegible]

S 4 BASE OF THE SKULL

DC	10	9	22	34T	72T	79T	97T	11X	13X	15X	17X	19X	19X	20X	20X	20X	20X
DC	9	6	15	22T	47T	53T	64T	75T	88T	10X	11X	12X	13X	13X	13X	13X	13X
DC	8	4	9	13T	28T	31T	38T	44T	52T	59T	64T	72T	75T	76T	77T	77T	77T
DC	7	2	5	76K	16T	18T	22T	25T	30T	34T	37T	42T	43T	44T	44T	44T	45T
DC	6	1	2	33K	69K	77K	94K	11T	13T	15T	16T	18T	19T	19T	19T	19T	19T
DC	5	1	1	22K	46K	53K	63K	73K	86K	98K	11T	12T	12T	13T	13T	13T	13T
DC	4		1	13K	28K	31K	37K	43K	51K	58K	64K	72K	74K	76K	76K	76K	76K
DC	3		1	43H	13K	15K	18K	21K	25K	28K	31K	35K	36K	36K	37K	37K	37K
DC	2		1	18H	38H	42H	52H	60H	71H	81H	88H	99H	10K	10K	11K	11K	11K
DC	1		1	518	11H	12H	15H	17H	20H	23H	25H	28H	29H	30H	30H	30H	30H
			10	20											30	40	
EPEP		.2	.4	.8	.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	2.2	2.5	2.6
			XXXX	Skull	-----				Brain	-----					Skull	XXXX	

S 5 NECK - THROAT

DC 10	41	104	190	580	11H	21H	30H	39H	43H	47H	51H
DC 9	21	52	95	290	574	10H	15H	20H	21H	23H	25H
DC 8	10	26	48	146	290	527	761	984	11H	12H	13H
DC 7	6	16	30	90	178	325	469	607	666	728	809
DC 6	3	8	15	45	90	163	235	304	334	365	406
DC 5	2	6	11	32	64	116	168	217	239	261	290
DC 4	1	3	6	20	39	70	101	131	144	158	176
DC 3	1	2	3	9	19	34	49	63	69	76	85
DC 2		1	1	3	5	10	14	18	20	22	25
DC 1			1	1	2	3	4	5	6	6	7

10 20 30

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.1

XXXXXXXXXXXX- - - - - Throat - - - - - XXXXXXXXXXXXX

S 6 NECK - SPINE

DC 10	41	104	190	317	13K	99K	13T	15T	15T	15T	16T	16T	16T
DC 9	21	52	95	158	66H	50K	67K	73K	73K	75K	78K	80K	81K
DC 8	10	26	48	80	33H	25K	34K	37K	37K	38K	40K	40K	41K
DC 7	6	16	30	49	20H	15K	21K	23K	23K	23K	24K	25K	25K
DC 6	3	8	15	25	10H	77H	10K	11K	11K	12K	12K	13K	13K
DC 5	2	6	11	18	731	55H	75H	81H	81H	84H	87H	89H	90H
DC 4	1	3	6	11	442	33H	45H	49H	49H	51H	53H	54H	55H
DC 3	1	2	3	5	213	16H	22H	24H	24H	24H	25H	26H	26H
DC 2		1	1	1	61	461	627	677	682	703	729	748	760
DC 1			1	1	18	132	180	194	196	202	209	215	218

220 400

EPEN .1 .2 .3 .9 1.5 1.6 1.7 2.1 2.3 2.9 3.0 3.1 3.2

XXXXXXXXXXXX- - - - - Spine - - - - - XXXXXXXXXXXXX

S 7 SHOULDER SOCKET - LUNG - WINDPIPE

DC 10	30	86	530	15H	57H	77K	77K	77K	77K	77K	77K	77K	77K	83K	87K
DC 9	15	43	265	761	29H	37K	37K	37K	37K	37K	37K	37K	37K	41K	44K
DC 8	8	22	134	384	14H	19K	19K	19K	19K	19K	19K	19K	19K	21K	22K
DC 7	5	13	82	236	892	12K	12K	12K	12K	12K	12K	12K	12K	13K	14K
DC 6	2	7	41	119	448	58H	58H	58H	58H	58H	58H	58H	58H	64H	68H
DC 5	2	5	30	85	319	41H	41H	41H	41H	41H	41H	41H	41H	46H	48H
DC 4	1	3	18	51	193	25H	25H	25H	25H	25H	25H	25H	25H	28H	29H
DC 3	1	1	9	25	93	12H	12H	12H	12H	12H	12H	12H	12H	13H	14H
DC 2		1	2	7	27	345	345	345	345	345	345	345	345	385	426
DC 1			1	2	8	99	99	99	99	99	99	99	99	110	122

20 50 100

110

EPEN .1 .2 2.7 5.8 11 12 12 12 12 12 12 12 12 12 13 14

XXXXXXX -- Humerus -- /// Lung /// --- Windpipe --- /// Lung /// Rib XXX

S 8 SHOULDER SOCKET - LUNG - SPINE

DC 10	30	86	530	15H	57H	28K	28K	28K	28T	28T	28T	40T	40T	40T	41T	42T
DC 9	15	43	265	761	29H	14K	14K	14K	14T	14T	14T	20T	20T	20T	20T	21T
DC 8	8	22	134	384	14H	72H	72H	72H	72K	72K	72K	10T	10T	10T	10T	11T
DC 7	5	13	82	236	892	44H	44H	44H	44K	44K	44K	61K	61K	61K	64K	65K
DC 6	2	7	41	119	448	22H	22H	22H	22K	22K	22K	31K	31K	31K	32K	33K
DC 5	2	5	30	85	319	16H	16H	16H	16K	16K	16K	22K	22K	22K	23K	23K
DC 4	1	3	18	51	193	954	954	954	96H	96H	96H	13K	13K	13K	14K	14K
DC 3	1	1	9	25	93	460	460	460	46H	46H	46H	64H	64H	64H	66H	68H
DC 2		1	2	7	27	132	132	132	13H	13H	13H	18H	18H	18H	19H	20H
DC 1			1	2	8	38	38	38	380	380	380	529	529	529	547	572

20 50 100

500

510

EPEN .1 .2 2.7 5.8 11 12 12 12 13 13 13 14 14 14 14 15 16

XXXXXXX -- Humerus --- /// Lung /// --- Spine --- /// Lung /// Rib XXXX

S 9 UPPER CHEST - RIB - LUNG

DC 10	20	103	23K	23K	23K	24K	24K	25K	26K	65K	65K	65K	69K	73K
DC 9	10	52	11K	11K	11K	12K	12K	13K	13K	33K	33K	33K	34K	36K
DC 8	5	26	57H	57H	57H	59H	61H	63H	65H	17K	17K	17K	17K	18K
DC 7	3	16	35H	35H	35H	37H	38H	39H	40H	10K	10K	10K	11K	11K
DC 6	2	8	18H	18H	18H	18H	19H	20H	20H	51H	51H	51H	54H	57H
DC 5	1	6	13H	13H	13H	13H	14H	14H	14H	36H	36H	36H	38H	41H
DC 4	1	3	764	764	764	792	820	842	871	22H	22H	22H	23H	25H
DC 3		2	358	358	358	382	395	406	420	11H	11H	11H	11H	12H
DC 2		1	106	106	106	110	114	116	121	305	305	305	321	350
DC 1		1	30	30	30	31	33	33	35	88	88	88	92	100
			10											20
EPEN	.1	.6	1.0	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.5	1.5	1.9	2.4
	XXX	Rib	---	Lung	---	XXXXXXXXXXXXXXXXXX	---	Lung	---	Rib	---			XXX

S 11 UPPER CHEST - LUNG

[illegible]

S 11 UPPER CHEST - RIB - LUNG - HEART

DC	10	20	69	75H	75H	75H	23K	14X	17X	19X	20X	22X	23X	27X	28X	32X	32X	32X	32X	32X
DC	9	10	35	38H	38H	38H	12K	71T	84T	93T	10X	11X	12X	13X	14X	16X	16X	16X	16X	16X
DC	8	5	17	19H	19H	19H	58H	36T	42T	47T	50T	55T	59T	68T	72T	81T	81T	81T	81T	82T
DC	7	3	11	12H	12H	12H	36H	22T	26T	29T	31T	34T	36T	42T	44T	50T	50T	50T	50T	50T
DC	6	2	5	588	588	588	18H	11T	13T	14T	16T	17T	18T	21T	22T	25T	25T	25T	25T	25T
DC	5	1	4	420	420	420	13H	80K	93K	10T	11T	12T	13T	15T	16T	18T	18T	18T	18T	18T
DC	4	1	2	254	254	254	775	48K	56K	62K	67K	73K	78K	90K	96K	11T	11T	11T	11T	11T
DC	3	1	1	122	122	122	374	23K	27K	30K	32K	35K	38K	44K	46K	52K	52K	52K	52K	52K
DC	2		1	35	35	35	107	67H	78H	86H	93H	10K	11K	13K	13K	15K	15K	15K	15K	15K
DC	1		1	10	10	10	31	19H	22H	25H	27H	29H	31H	36H	38H	43H	43H	43H	43H	43H
				10															20	
EPEN		.1	.4	1.1	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.1	2.1	3.0	3.1
		XXXXX	Rib	---	Lung	--XX-	-----	Heart	-----	-XX--	Lung	---	Rib	XXX						

S 12 UPPER CHEST - LUNG - HEART

[illegible]

S 13 UPPER CHEST - RIB - LUNG - SPINE

DC 10	20	103	426	17K	17K	17K	18K	33K	11T	18T	23T	34T	34T	34T	35T	35T	36T	36T
DC 9	10	52	213	73H	73H	73H	91H	17K	57K	91K	11T	17T	17T	17T	17T	18T	18T	18T
DC 8	5	26	108	42H	42H	42H	46H	84H	29K	46K	57K	87K	87K	87K	88K	89K	91K	91K
DC 7	3	16	66	26H	26H	26H	28H	52H	18K	28K	35K	54K	54K	54K	54K	54K	56K	56K
DC 6	2	8	33	13H	13H	13H	14H	26H	89H	14K	18K	27K	27K	27K	27K	27K	28K	28K
DC 5	1	6	24	925	925	925	10H	18H	64H	10K	13K	19K	19K	19K	19K	19K	20K	20K
DC 4	1	3	14	559	559	559	612	11H	39H	61H	76H	12K	12K	12K	12K	12K	12K	12K
DC 3	1	2	7	269	269	269	295	538	19H	29H	37H	56H	56H	56H	57H	57H	59H	59H
DC 2		1	2	77	77	77	85	154	534	846	11H	16H	16H	16H	16H	16H	17H	17H
DC 1		1	1	22	22	22	24	44	153	243	304	461	461	461	466	472	483	490

10

50 410

420

EPEN .1 .6 1.1 1.2 1.2 1.2 1.4 2.3 2.4 2.5 2.6 3.7 3.7 3.7 3.8 4.3 4.8 4.9

XXXX Rib XX--- Lung ---//////// Spine //////////--- Lung --- XX XXX Rib XXXX

S 14 LOWER CHEST - RIB - STOMACH - LIVER

DC 10	20	69	782	15H	20H	28H	42H	53H	61H	74H	84H	12K	15K	19K	23K	28K	36K	43K	55K	74K	83K	96K	11T	11T
DC 9	10	35	391	757	10H	14H	21H	26H	31H	37H	42H	60H	74H	86H	11K	14K	18K	21K	27K	37K	41K	48K	53K	55K
DC 8	5	17	197	382	511	709	11H	13H	15H	19H	21H	30H	37H	48H	57H	70H	92H	11K	14K	19K	21K	24K	27K	28K
DC 7	3	11	122	235	315	437	653	817	952	11H	13H	19H	23H	30H	35H	43H	57H	66H	85H	12K	13K	15K	16K	17K
DC 6	2	5	61	118	158	219	328	410	478	574	652	931	12H	15H	18H	22H	28H	33H	43H	58H	65H	75H	82H	85H
DC 5	1	4	44	84	113	157	234	293	341	410	465	664	826	11H	13H	16H	20H	24H	31H	41H	46H	54H	59H	61H
DC 4	1	2	26	51	68	95	141	177	206	248	281	401	499	645	764	937	12H	14H	18H	25H	28H	32H	35H	37H
DC 3	1	1	13	25	33	46	68	85	99	119	136	193	241	311	368	452	591	693	889	12H	13H	16H	17H	18H
DC 2		1	4	7	9	13	20	24	29	34	39	56	69	89	106	130	170	199	255	346	386	449	490	509
DC 1		1	1	2	3	4	6	7	8	10	11	16	20	26	30	37	49	57	73	99	111	129	141	147

10

20

EPEN .1 .4 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.8 3.0 3.1 3.3 3.4 4.3

XXXXX Rib ----- Stomach -----XXX----- Liver ----- Rib X

S15 LOWER CHEST - STOMACH - LIVER

DC 10	20	55	231	580	939	15H	26H	35H	42H	52H	61H	93H	12K	16K	19K	24K	32K	38K	49K	68K	76K	89K	98K	10T
DC 9	10	27	116	290	465	753	13H	17H	21H	26H	31H	46H	59H	79H	95H	12K	16K	19K	25K	34K	38K	45K	49K	51K
DC 8	5	14	58	146	235	380	655	874	11H	13H	15H	23H	30H	40H	48H	60H	81H	96H	12K	17K	19K	23K	25K	26K
DC 7	3	8	36	90	144	234	403	538	651	815	949	14H	18H	25H	30H	37H	50H	59H	77H	11K	12K	14K	15K	16K
DC 6	2	4	18	45	73	118	203	270	327	409	477	722	927	12H	15H	19H	25H	30H	39H	53H	60H	70H	76H	79H
DC 5	1	3	13	32	52	84	145	193	233	292	340	515	661	880	11H	13H	18H	21H	27H	38H	42H	50H	54H	57H
DC 4	1	2	8	20	31	51	87	117	141	177	206	312	400	532	643	804	11H	13H	17H	23H	26H	30H	33H	34H
DC 3	1	1	4	9	15	24	42	56	68	85	99	150	193	257	310	387	518	615	801	11H	12H	15H	16H	17H
DC 2		1	1	3	4	7	12	16	20	24	28	43	55	74	89	111	149	177	230	317	355	416	456	474
DC 1			1	1	1	2	3	5	6	7	8	12	16	21	26	32	43	51	66	91	102	120	131	136

10

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 2.0 2.2 2.3 2.5 2.6 3.6

XXXXXXXXXX----- Stomach -----XXX----- Liver -----XX Rib X

S 16 LOWER CHEST - RIB - SPLEEN - LIVER

DC 10	20	69	19H	68H	10K	16K	27K	35K	42K	53K	61K	80K	87K	86K	10T	11T	13T	14T	16T	17T	19T	21T	23T	24T
DC 9	10	35	938	34H	52H	81H	13K	18K	21K	26K	30K	40K	43K	48K	51K	56K	64K	70K	79K	84K	95K	11T	12T	12T
DC 8	5	17	473	17H	26H	41H	68H	89H	11K	13K	15K	20K	22K	24K	26K	28K	32K	35K	40K	42K	48K	53K	59K	60K
DC 7	3	11	291	11H	16H	25H	42H	55H	66H	82H	95H	12K	13K	15K	16K	18K	20K	22K	25K	26K	29K	33K	36K	37K
DC 6	2	5	146	529	807	13H	21H	28H	33H	41H	47H	63H	68H	75H	80H	88H	10K	11K	12K	13K	15K	17K	18K	19K
DC 5	1	4	104	377	576	897	15H	20H	24H	29H	34H	45H	48H	53H	57H	63H	71H	77H	88H	93H	11K	12K	13K	13K
DC 4	1	2	63	228	348	542	903	12H	14H	18H	20H	27H	29H	32H	35H	38H	43H	47H	53H	56H	64H	71H	79H	80H
DC 3	1	1	30	110	168	261	435	572	686	852	987	13H	14H	16H	17H	18H	21H	23H	26H	27H	31H	34H	38H	39H
DC 2		1	9	32	48	75	125	164	197	245	283	373	404	446	479	525	597	647	740	781	881	987	11H	11H
DC 1		1	3	9	14	22	36	47	57	70	81	107	116	128	138	151	171	186	212	224	253	283	314	319

10

20

EPEN .1 .4 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.8 2.9 3.0 3.2 3.4 4.3

XXXXX Rib XXX----- Spleen -----XXXX----- Liver ----- Rib X

DC	10	41	165	426	19H	41H	94H	13K	23K	29K	34K	36K	15T	22T	26T	27T	33T	38T	43T	45T	49T	52T	52T	53T	54T
DC	9	21	82	213	938	20H	47H	67H	12K	15K	17K	18K	74K	11T	13T	14T	16T	19T	21T	23T	24T	26T	26T	26T	27T
DC	8	10	42	108	473	10H	24H	34H	59H	74H	86H	90H	37K	56K	65K	69K	82K	95K	11T	11T	12T	13T	13T	13T	14T
DC	7	6	26	66	291	635	15H	21H	36H	46H	53H	55H	23K	34K	40K	43K	51K	59K	67K	70K	76K	81K	81K	82K	84K
DC	6	3	13	33	146	319	730	10H	18H	23H	27H	28H	12K	17K	20K	21K	25K	30K	34K	35K	38K	41K	41K	41K	42K
DC	5	2	9	24	104	227	521	747	13H	16H	19H	20H	82H	12K	14K	15K	18K	21K	24K	25K	27K	29K	29K	29K	30K
DC	4	1	6	14	63	137	315	451	788	986	11H	12H	50H	74H	87H	92H	11K	13K	14K	15K	16K	17K	17K	18K	18K
DC	3	1	3	7	30	66	152	218	380	475	554	577	24H	36H	42H	44H	53H	61H	70H	73H	79H	84H	84H	86H	88H
DC	2		1	2	9	19	44	62	109	137	159	166	687	10H	12H	13H	15H	18H	20H	21H	23H	24H	24H	25H	25H
DC	1		1	1	3	5	13	18	31	39	46	48	197	296	345	366	437	506	575	603	650	694	699	708	724
		10									100	410												420	
EPEN		.1	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	2.0	2.9	3.0	3.1	3.2	3.8	4.4	4.5	4.6	4.7	4.8	5.0	5.3	6.0	6.1
		XXXX	Rib	XXXXXX	-----	Kidney	-----	XX	-----	Spine	-----	XX	-----	Kidney	-----	Rib	XXX								

DC	10	20	127	293	517	795	16H	21H	31H	37H	43H	50H	67H	75H	93H	10K	11K	12K	15K	16K	18K	20K	22K	25K	26K
DC	9	10	64	147	259	398	822	10H	16H	18H	22H	25H	34H	38H	46H	51H	56H	62H	73H	79H	91H	99H	11K	13K	13K
DC	8	5	32	74	130	201	415	527	786	933	11H	13H	17H	19H	23H	26H	28H	32H	37H	40H	46H	50H	57H	64H	67H
DC	7	3	20	46	80	124	256	325	485	575	672	776	10H	12H	14H	16H	17H	19H	23H	25H	28H	31H	35H	39H	41H
DC	6	2	10	23	40	62	128	163	243	289	337	390	524	587	722	795	870	975	11H	12H	14H	15H	18H	20H	21H
DC	5	1	7	16	29	44	92	116	174	206	241	278	374	419	515	567	621	696	816	879	10H	11H	12H	14H	15H
DC	4	1	4	10	17	27	55	70	105	124	146	168	226	253	312	343	375	421	493	531	611	667	755	848	914
DC	3	1	2	5	8	13	27	34	51	60	70	81	109	122	150	165	181	203	238	256	294	321	364	409	442
DC	2		1	1	2	4	8	10	15	17	20	23	31	35	43	47	52	58	68	74	85	92	105	117	126
DC	1			1	1	1	2	3	4	5	6	7	9	10	12	14	15	17	20	21	24	27	30	34	36
EPEN	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.3	2.4	2.7	
		XXXXXXXXXXXXX-----Intestines-----XXXX																							

[illegible]

DC 10	34	98	301	12H	27H	37H	46H	56H	67H	81H	94H	11K	12K	14K	17K	21K	25K	28K	32K	40K	48K	54K	57K	62K
DC 9	18	51	157	637	14H	19H	24H	29H	35H	42H	49H	56H	63H	73H	90H	11K	13K	15K	17K	21K	25K	28K	30K	32K
DC 8	9	26	82	332	726	10H	12H	15H	18H	22H	26H	29H	33H	38H	47H	58H	69H	76H	88H	11K	13K	15K	16K	17K
DC 7	6	16	50	204	446	614	765	931	11H	14H	16H	18H	20H	23H	29H	36H	42H	47H	54H	67H	81H	90H	96H	10K
DC 6	3	7	22	91	199	273	341	415	495	604	698	798	904	10H	13H	16H	19H	21H	24H	30H	36H	40H	43H	46H
DC 5	2	5	15	61	133	183	228	277	331	404	467	534	605	699	862	11H	13H	14H	16H	20H	24H	27H	29H	31H
DC 4	1	3	9	36	79	109	136	165	197	241	278	318	360	417	514	634	750	827	957	12H	14H	16H	17H	18H
DC 3	1	1	4	17	38	53	65	80	95	116	134	153	174	201	248	305	361	398	461	571	692	769	820	936
DC 2		1	1	5	11	15	19	23	27	33	39	44	50	58	71	88	104	114	132	164	199	221	236	268
DC 1			1	1	3	4	5	7	8	10	11	13	14	17	20	25	30	33	38	47	57	63	68	76
			20																			30	40	
EPEN	.1	.2	1.1	1.2	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.5	2.7	2.9	3.1	3.3	3.6	3.9	4.3	5.0	5.1
	XXXXXXX		Pelvis									Intestines										Pelvis	XXXXX	

S 21 HIP - SPINE

DC 10	23	62	216	340	449	614	904	11H	13H	16H	18H	20H	25H	72H	65K	84K	91K	96K	98K	10T	11T	11T	11T	11T
DC 9	12	32	113	177	234	320	471	586	680	814	922	10H	13H	38H	34K	44K	48K	50K	51K	53K	55K	57K	59K	60K
DC 8	6	17	59	92	122	167	245	305	354	424	480	539	680	20H	18K	23K	25K	26K	27K	27K	29K	29K	31K	31K
DC 7	4	10	36	57	75	102	151	188	217	260	295	331	417	12H	11K	14K	15K	16K	16K	17K	18K	18K	19K	19K
DC 6	2	5	16	25	33	46	67	84	97	116	131	147	186	534	48H	63H	68H	71H	73H	75H	79H	81H	84H	85H
DC 5	1	3	11	17	22	31	45	56	65	78	88	99	124	358	32H	42H	45H	48H	49H	50H	53H	54H	56H	57H
DC 4	1	2	6	10	13	18	27	33	39	46	52	59	74	213	19H	25H	27H	28H	29H	30H	31H	32H	34H	34H
DC 3	1	1	3	5	6	9	13	16	19	22	25	28	36	103	927	12H	13H	14H	14H	14H	15H	15H	16H	16H
DC 2		1	1	1	2	3	4	5	5	6	7	8	10	29	266	346	374	394	403	415	434	445	465	477
DC 1			1	1	1	1	1	1	2	2	2	2	3	8	76	99	107	113	116	119	125	128	134	136

220 400

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0 1.1 1.2 1.8 2.4 2.5 2.6 3.8 3.9 4.0 4.2 4.4 4.6 4.8 5.0

XXX----- Spine -----XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

S 22 HIP SOCKET

DC 10	21	283	10H	18H	25K	51K	51K	51K	69K															
DC 9	13	166	587	10H	15K	30K	30K	30K	40K															
DC 8	7	91	320	570	79H	16K	16K	16K	22K															
DC 7	4	52	184	327	46H	94H	94H	94H	13K															
DC 6	2	22	79	14	20H	40H	40H	40H	54H															
DC 5	1	15	53	94	13H	27H	27H	27H	36H															
DC 4	1	9	31	56	780	16H	16H	16H	22H															
DC 3	1	4	15	27	376	778	778	778	10H															
DC 2		1	4	8	108	223	223	223	306															
DC 1			1	2	31	64	64	64	87															

40 60 130

EPEN .1 .2 4.9 7.0 14 15 15 16

XXXXXXX--- Femur --- /// Intestines /// XXX

S 23 SHIN - FLESH

DC 10	68	170	175	175	175	175	175	175	175	175														
DC 9	32	79	145	175	175	175	175	175	175	175														
DC 8	14	36	66	104	150	175	175	175	175	175														
DC 7	8	20	37	59	84	122	156	175	175	175														
DC 6	3	9	16	25	36	52	67	84	101	106														
DC 5	2	6	11	17	24	35	45	56	68	71														
DC 4	1	3	6	10	14	21	27	33	40	42														
DC 3	1	2	3	5	7	10	13	16	20	20														
DC 2		1	1	1	2	3	4	5	6	6														
DC 1			1	1	1	1	1	1	2	2														

EPEN .1 .2 .3 .4 .5 .6 .7 .8 .9 1.0

XXX

S 24 SHIN - TIBIA

DC 10	68	114	175	175	175	175	175	175	175	175														
DC 9	32	53	130	175	175	175	175	175	175	175														
DC 8	14	24	59	108	169	175	175	175	175	175														
DC 7	8	14	33	61	95	136	175	175	175	175														
DC 6	3	6	14	26	41	58	79	175	175	175														
DC 5	2	4	10	17	27	39	53	129	175	175														
DC 4	1	2	6	10	16	23	31	77	109	175														
DC 3	1	1	3	5	8	11	15	37	53	96														
DC 2		1	1	1	2	3	4	11	15	28														
DC 1			1	1	1	1	1	3	4	8														

10 15 20 30 40 80

EPEN .1 .2 1.1 1.9 2.8 3.7 4.6 8.8 8.9 9.1 9.2

XXXXXXX----- Tibia -----XXXXXXXXXXXXX

PHOENIX COMMAND

Advanced Damage Tables For Small Arms

This **Advanced Damage Tables Supplement** is an ideal companion to the **Phoenix Command Combat System**, and provides a detailed, graphic expansion of the **Hit Location and Damage Tables**. In addition to Physical Damage, this supplement shows the actual bullet path through flesh, bones, and organs. Over 60 detailed Hit Locations are presented, covering shots from the Front, Side, and Rear, and from Oblique angles. In addition to these improvements in the Hit Location and Damage Tables, this supplement also includes other important features:

Low Penetration Weapons: The expanded Tables accurately show the effects of Low Penetration weapons, like under-powered pistols and Shot-guns firing Bird Shot.

Shock: Some wounds are more painful than they are lethal. This supplement accurately presents the effects of pain and Shock, as opposed to Physical Damage.

Glancing Off Bone: When a bullet hits a Bone, it will sometimes bounce off and continue through vital tissue, rather than expending its energy breaking the Bone. This is taken into account for the first time in this supplement.

The **Advanced Damage Tables Supplement** is an optional rules set designed for use with other **Leading Edge** products, including the **Phoenix Command Combat System** and the **Living Steel™ Adventure Game**.

The Revolution in Game Design continues!



LEADING EDGE
G A M E S