

## MAXIMUM DESIRABLE FAT PERCENTAGE PREFERRED LEVELS AND NORMALITY

### 5.1 MALE SUBJECTS

The levels recommended are based on a recent population survey of 9000 individuals performed by Durnin et al (1985), as well as the consensus of previous opinion (Katch & McArdle (1973); Durnin & Rahaman (1967); and Royal College of Physicians (1983). The maximum levels are age and sex dependent, reflecting an increased risk of morbidity and heart disease in males if they are fat and young (Van Itallie (1979), but allowing for a greater fat mass (25%) as the age of men increases to 40 years and beyond. A more preferable level would be 4 to 5% lower (i.e. 20%) and this should be sought. Younger men of less than 20 should have a preferred value of 15% or lower and there is a sliding scale of maximum fatness from the early twenties to forties and beyond.

#### MAXIMUM PREFERRED OR DESIRABLE FATNESS LEVELS FOR AGES

UP TO 24 YEARS	15%
25 - 27 YEARS	17%
28 - 29 YEARS	18%
30 - 32 YEARS	19%
33 - 39 YEARS	20%
OVER 40 YEARS	21%

### 5.2 FEMALE SUBJECTS

The average fat content for females is between 24 and 26% dependent upon country of residence and, although from a health point of view a maximum desirable level of 30% (young) and 35% (older) may pose no threat, this level of moderate obesity would not satisfy the desirable shape or quirks of contemporary fashion. The fashion model type of body composition reflects a fat percentage of 15% or less, female gymnasts as low as 8% and distance runners down to 6%. The maximum desirable level suggested is based on the work of Katch & McArdle (1973), Pollock et al (1975) and Brown & Jones (1977) and is 25% for women of 30 years and over, but starts at 20% for those less than 20 years old. Again there is a sliding scale reflecting advancing years and a reduction in health risk. Contemporary fashion would indicate a preferred female level of perhaps 3% lower than these values.

#### MAXIMUM PREFERRED OR DESIRABLE FATNESS LEVELS FOR AGES

UP TO 20 YEARS	17%
20 - 22 YEARS	18%
23 - 25 YEARS	19%
25 - 29 YEARS	20%
OVER 30 YEARS	22%

**See Page 2 for**

TABLE 1 - BODY FAT % VERSUS SKINFOLD THICKNESS - MALE SUBJECTS

**See Page 3 for**

TABLE 2 - BODY FAT % VERSUS SKINFOLD THICKNESS - FEMALE SUBJECTS

TABLE 1 - BODY FAT % VERSUS SKINFOLD THICKNESS - MALE SUBJECTS

SKINFOLD THICKNESS	AGE				
	17-19	20-29	30-39	40-49	50+
10 mm	0.41	0.04	5.05	3.30	2.63
12 mm	2.46	2.1	6.86	5.61	5.20
14 mm	4.21	3.85	8.40	7.58	7.39
16 mm	5.74	5.38	9.74	9.31	9.31
18 mm	7.10	6.74	10.93	10.84	11.02
20 mm	8.32	7.96	12.00	12.22	12.55
22 mm	9.43	9.07	12.98	13.47	13.95
24 mm	10.45	10.09	13.87	14.62	15.23
26 mm	11.39	11.03	14.69	15.68	16.42
28 mm	12.26	11.91	15.46	16.67	17.53
30 mm	13.07	12.73	16.17	17.60	18.56
32 mm	13.84	13.49	16.84	18.47	19.53
34 mm	14.56	14.22	17.47	19.28	20.44
36 mm	15.25	14.90	18.07	20.06	21.31
38 mm	15.89	15.55	18.63	20.79	22.13
40 mm	16.51	16.17	19.17	21.49	22.92
42 mm	17.10	16.76	19.69	22.16	23.66
44 mm	17.66	17.32	20.18	22.80	24.38
46 mm	18.20	17.86	20.65	23.41	25.06
48 mm	18.71	18.37	21.10	24.00	25.72
50 mm	19.21	18.87	21.53	24.56	26.35
52 mm	19.69	19.35	21.95	25.10	26.96
54 mm	20.15	19.81	22.35	25.63	27.55
56 mm	20.59	20.26	20.73	26.13	28.11
58 mm	21.02	20.69	23.11	26.62	28.66
60 mm	21.44	21.11	23.47	27.09	29.20
62 mm	21.84	21.51	23.82	27.55	29.71
64 mm	22.23	21.90	24.16	28.00	30.21
66 mm	22.61	22.28	24.49	28.43	30.70
68 mm	22.98	22.65	24.81	28.85	31.17
70 mm	23.34	23.01	25.13	29.26	31.63
72 mm	23.69	23.36	25.43	29.66	32.07
74 mm	24.03	23.70	25.73	30.04	32.51
76 mm	24.36	24.03	26.01	30.42	32.93
78 mm	24.68	24.36	26.30	30.79	33.35
80 mm	25.00	24.67	26.57	31.15	33.75

TABLE 2 - BODY FAT % VERSUS SKINFOLD THICKNESS - FEMALE SUBJECTS

SKINFOLD THICKNESS	AGE				
	17-19	20-29	30-39	40-49	50+
10 mm	5.34	4.88	8.72	11.71	12.88
12 mm	7.60	7.27	10.85	13.81	15.10
14 mm	9.53	9.30	12.68	15.59	16.99
16 mm	11.21	11.08	14.27	17.15	18.65
18 mm	12.71	12.66	15.68	18.54	20.11
20 mm	14.05	14.08	16.95	19.78	21.44
22 mm	15.28	15.38	18.10	20.92	22.64
24 mm	16.40	16.57	19.16	21.95	23.74
26 mm	17.44	17.67	20.14	22.91	24.76
28 mm	18.40	18.69	21.05	23.80	25.71
30 mm	19.30	19.64	21.90	24.64	26.59
32 mm	20.15	20.54	22.70	25.42	27.42
34 mm	20.95	21.39	23.45	26.16	28.21
36 mm	21.71	22.19	24.16	26.85	28.95
38 mm	22.42	22.95	24.84	27.51	29.65
40 mm	23.10	23.67	25.48	28.14	30.32
42 mm	23.76	24.36	26.09	28.74	30.96
44 mm	24.38	25.02	26.68	29.32	31.57
46 mm	24.97	25.65	27.24	29.87	32.15
48 mm	25.54	26.26	27.78	30.39	32.71
50 mm	26.09	26.84	28.30	30.90	33.25
52 mm	26.62	27.40	28.79	31.39	33.77
54 mm	27.13	27.94	29.27	31.86	34.27
56 mm	27.63	28.47	29.74	32.31	34.75
58 mm	28.10	28.97	30.19	32.75	35.22
60 mm	28.57	29.46	30.62	33.17	35.67
62 mm	29.01	29.94	31.04	33.58	36.11
64 mm	29.45	30.40	31.45	33.98	36.53
66 mm	29.87	30.84	31.84	34.37	36.95
68 mm	30.28	31.28	32.23	34.75	37.35
70 mm	30.67	31.70	32.60	35.11	37.74
72 mm	31.06	32.11	32.97	35.47	38.12
74 mm	31.44	32.51	33.32	35.82	38.49
76 mm	31.81	32.91	33.67	36.15	38.85
78 mm	32.17	33.29	34.00	36.48	39.20
80 mm	32.52	33.66	34.33	36.81	39.54