

TABLE 3Major organ and tissue masses and whole-body resting energy expenditure (REE)¹

	All subjects	21–30 y (young)	31–50 y (middle-age)	51–73 y	<i>P</i> ²
Liver (kg)	1.39 ± 0.25 ³	1.35 ± 0.23	1.41 ± 0.25	1.41 ± 0.28	0.513 ⁴
Brain (kg)	1.33 ± 0.11	1.33 ± 0.11	1.34 ± 0.10	1.32 ± 0.12	0.766 ⁴
Heart (kg)	0.31 ± 0.08	0.31 ± 0.09	0.30 ± 0.08	0.33 ± 0.07	0.327 ⁴
Kidneys (kg)	0.29 ± 0.06	0.28 ± 0.06	0.28 ± 0.05	0.31 ± 0.06	0.042 ⁵
SM (kg)	26.3 ± 6.3	25.0 ± 5.9	26.7 ± 6.6	26.9 ± 6.4	0.532 ⁴
AT (kg)	19.4 ± 6.4	18.4 ± 6.4	19.9 ± 6.3	19.9 ± 6.5	0.443 ⁴
Residual mass (kg)	24.7 ± 5.2	22.8 ± 3.9	24.9 ± 6.0	26.5 ± 4.6	0.004 ⁶
REEm (kcal/d)	1575 ± 241	1547 ± 241	1590 ± 248	1586 ± 234	0.649 ⁴
REEp (kcal/d)	1588 ± 234	1535 ± 220	1596 ± 239	1636 ± 236	0.147 ⁴
REEm – REEp (kcal/d) ⁷	–13 ± 80 (0.068)	11 ± 80 (0.36)	–6 ± 79 (0.59)	–50 ± 67 (<0.001)	—

¹ AT, adipose tissue; REEm, REE measured by indirect calorimetry; REEp, REE predicted by the K_i values suggested by Elia (1); SM, skeletal muscle.

² Tests of group mean differences for organ and tissue masses and REE by ANOVA and pairwise analyses with Bonferroni adjustment.

³ Mean ± SD (all such values).

⁴ Pairwise comparisons with Bonferroni adjustment, $P > 0.1$.

⁵ Young compared with middle-age ($P > 0.1$), young compared with >50 y ($P = 0.06$), and middle-age compared with >50 y ($P > 0.1$).

⁶ Young compared with middle-age ($P > 0.1$), young compared with >50 y ($P < 0.01$), and middle-age compared with >50 y ($P > 0.1$).

⁷ Values in parentheses are the P values for the difference between REEm and REEp within relevant groups by paired t test.