

Energy requirements of infants during the first year of life*

Age months	Weight kg	Weight gain g/d	Total energy expenditure ^a		Energy deposition ^b		Daily energy requirement ^c			
			MJ/d	kcal/d	MJ/d	kcal/d	MJ/d	kcal/d	kJ/kg/d	kcal/kg/d
Boys										
0-1	4.58	35.2	1.282	306	0.884	211	2.166	518	473	113
1-2	5.50	30.4	1.623	388	0.764	183	2.387	570	434	104
2-3	6.28	23.2	1.912	457	0.582	139	2.494	596	397	95
3-4	6.94	19.1	2.157	515	0.224	53	2.380	569	343	82
4-5	7.48	16.1	2.357	563	0.189	45	2.546	608	340	81
5-6	7.93	12.8	2.524	603	0.150	36	2.674	639	337	81
6-7	8.30	11.0	2.661	636	0.069	17	2.730	653	329	79
7-8	8.62	10.4	2.780	664	0.065	16	2.845	680	330	79
8-9	8.89	9.0	2.880	688	0.057	14	2.936	702	330	79
9-10	9.13	7.9	2.969	710	0.089	21	3.058	731	335	80
10-11	9.37	7.7	3.058	731	0.087	21	3.145	752	336	80
11-12	9.62	8.2	3.150	753	0.093	22	3.243	775	337	81
Girls										
0-1	4.35	28.3	1.197	286	0.746	178	1.942	464	447	107
1-2	5.14	25.5	1.490	356	0.672	161	2.162	517	421	101
2-3	5.82	21.2	1.742	416	0.559	134	2.301	550	395	94
3-4	6.41	18.4	1.960	469	0.285	68	2.245	537	350	84
4-5	6.92	15.5	2.149	514	0.239	57	2.389	571	345	83
5-6	7.35	12.8	2.309	552	0.199	47	2.507	599	341	82
6-7	7.71	11.0	2.442	584	0.083	20	2.525	604	328	78
7-8	8.03	9.2	2.561	612	0.069	17	2.630	629	328	78
8-9	8.31	8.4	2.665	637	0.063	15	2.728	652	328	78
9-10	8.55	7.7	2.754	658	0.074	18	2.828	676	331	79
10-11	8.78	6.6	2.839	679	0.063	15	2.902	694	331	79
11-12	9.00	6.3	2.920	698	0.060	14	2.981	712	331	79

* Calculated from linear regression analysis of total energy expenditure on weight, plus allowance for energy deposition in tissues during growth.

^a TEE (MJ/d) = - 0.416 + 0.371 kg (section 3.2).

^b Weight gain × energy accrued in normal growth (Table 3.1).

^c Requirement = total energy expenditure + energy deposition.

Sources: Butte, 2001. Weight and weight gain data from WHO, 1994.