

## Energy and Protein Needs in Pediatrics

### WHO Equations:

Age	Male	Female	g/kg/d (protein)
3 y/o	$60.9 \times \text{wt (kg)} - 54$	$61 \times \text{wt (kg)} - 51$	1.1
3-10 y/o	$22.7 \times \text{wt (kg)} + 495$	$22.5 \times \text{wt (kg)} + 499$	0.95
10-18 y/o	$17.5 \times \text{wt (kg)} + 651$	$12.2 \times \text{wt (kg)} + 496$	0.95
$\geq 18$ y/o	$15.3 \times \text{wt (kg)} + 679$	$14.7 \times \text{wt (kg)} + 496$	0.95

14 y/o Male TK, Ht: 65", Wt: 56kg

$$17.5 \times 56\text{kg} + 651$$

$$980 + 651 = \mathbf{1,631 \text{ kcal/d}}$$

$$56\text{kg} \times 0.95 = \mathbf{53.2 \text{ g/d protein}}$$

9 y/o Female AP, Ht: 52", Wt: 28kg

$$22.7 \times 28\text{kg} + 499$$

$$636 + 499 = \mathbf{1,135 \text{ kcal/d}}$$

$$28\text{kg} \times 0.95 = \mathbf{27 \text{ g/d protein}}$$