

## HEALTH CANADA'S: FLUID MANAGEMENT IN CHILDREN

Maintenance fluid is the amount of fluid the body needs to replace regular daily losses. A well child usually drinks more than maintenance requirements. The requirements for maintenance fluids vary with the weight of the child. Various medical conditions as well as the child's activity level will also affect these requirements.

In general, maintenance fluids can be considered the minimum fluid intake that a child requires in order to avoid dehydration.

Follow the chart below to calculate the child's minimum fluid requirements:

### **Daily Maintenance Fluid Requirements (24 hour period)**

#### **Calculation:**

100 mL/kg for the first 10 kg body weight  
+ 50 mL/kg for the next 10 kg body weight  
+ 20 mL for every kilogram of body weight over 20 kg.

For example, minimum daily fluid intake for...

1. For 10 kg child:  $10 \text{ kg} \times 100 \text{ mL/kg} = \mathbf{1000 \text{ mL}}$
2. For 15 kg child:  $(10 \text{ kg} \times 100 \text{ mL/kg}) + (5 \text{ kg} \times 50 \text{ mL/kg}) = \mathbf{1250 \text{ mL}}$
3. For 25 kg child:  $(10 \text{ kg} \times 100 \text{ mL/kg}) + (10 \text{ kg} \times 50 \text{ mL/kg}) + (5 \text{ kg} \times 20 \text{ mL/kg}) = \mathbf{1600 \text{ mL}}$

Reference:

Health Canada (2002). *Fluid management: Fluid requirements in children*. Retrieved from: [www.hc-sc.gc.ca/fnih-spni/alt\\_formats/fnihb-dgspni/pdf/pubs/nursing-infir/ped\\_chap\\_04\\_e.pdf](http://www.hc-sc.gc.ca/fnih-spni/alt_formats/fnihb-dgspni/pdf/pubs/nursing-infir/ped_chap_04_e.pdf)