



# Metric System

## Patient and Family Education

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### What is the metric system?

The metric system is an international system of measurement.

### What does this mean for my child?

It means that your child's weight, height, medicines and temperature are measured using metric units. Our staff can help you convert metric units to the English units that may be more familiar to you.

### What are some common metric units?

- Height – centimeter and meter
- Weight – grams and kilograms
- Volume – cubic centimeters (cc) or milliliters (ml) - these are both the same
- Temperature – measured as degrees Celsius (°C)

### What metric units are used at Children's Healthcare of Atlanta?

Here is a table of common measures used at Children's Healthcare of Atlanta (all measures are approximate):

Metric	English
<b>Length</b>	
2.5 centimeters	1 inch
30 centimeters	1 foot
<b>Weight</b>	
30 grams	1 ounce
0.45 kilogram	1 pound
<b>Volume</b>	
30 cc(ml)	1 ounce
<b>Temperature</b>	
37°C (Celsius)	98.6°F (Fahrenheit)

### **In case of an urgent concern or emergency, call 911 or go to the nearest emergency room right away.**

This is general information and is not specific medical advice for your child. Always consult your child's doctor or other healthcare provider if you have any questions or concerns about the care or health of your child. A Children's Healthcare of Atlanta pediatric advice nurse is available 24 hours a day at 404-250-KIDS.

## Metric System, continued

How can I convert metric units to English units?

Our staff can convert your child's metric units to English units for you. But if you'd like to do it yourself, you can use these formulas:

Length		Example
Centimeters to inches	Divide the number of centimeters by 2.5	$\frac{100 \text{ centimeters}}{2.5} = 40 \text{ inches}$
Centimeters to feet	Divide the number of centimeters by 30	$\frac{100 \text{ centimeters}}{30} = 3.3 \text{ feet}$
Weight		Example
Grams to ounces	Divide the number of grams by 30	$\frac{1000 \text{ grams}}{30} = 33 \text{ ounces}$
Kilograms to pounds	Multiply the number of kilograms by 2.2	$50 \text{ kilograms} \times 2.2 = 110 \text{ pounds}$
Volume		Example
cc(ml) to ounces	Divide number of cc(ml) by 30	$\frac{30 \text{ cc (ml)}}{30} = 1 \text{ ounce}$
Temperature		Example
Celsius to Fahrenheit	Multiply the degrees Celsius by 1.8 Then add 32	$37^{\circ} \text{ C} \times 1.8 = 66.6$ $+ 32 = 98.6^{\circ} \text{ F}$

## Body temperature chart

Celsius (°C)	Fahrenheit (°F)		Celsius (°C)	Fahrenheit (°F)		Celsius (°C)	Fahrenheit (°F)
35	95		37.7	99.9		39	102.2
36	96.8		37.8	100		39.1	102.4
36.2	97.2		37.9	100.2		39.2	102.6
36.4	97.5		38	100.4		39.3	102.7
36.6	97.9		38.1	100.6		39.4	102.9
36.8	98.2		38.2	100.8		39.5	103.1
37	98.6		38.3	100.9		39.6	103.3
37.1	98.8		38.4	101.1		39.7	103.5
37.2	99		38.5	101.3		39.8	103.6
37.3	99.1		38.6	101.5		39.9	103.8
37.4	99.3		38.7	101.7		40	104
37.5	99.5		38.8	101.8		40.5	104.9
37.6	99.7		38.9	102		41	105.8

Please ask your child's nurse if you have any questions.

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