

Medical Conversions

Length

Metric (SI)

Abbreviations

mm - millimeter

cm - centimeter

m - meter

km - kilometer

Equal to

1 km = 1,000 m = 100,000 cm = 1,000,000 mm

1 m = 100 cm = 1,000 mm

1 cm = 10 mm

SI = US

1 mm = 0.04 in

1 cm = 0.39 in

1 cm = 0.03 ft

1 m = 39.37 in

1 m = 3.28 ft

1 m = 1.09 yd

1 km = 3,281 ft

1 km = 1,094 yd

1 km = 0.62 mi

Imperial (US)

Abbreviations

in - inch

ft - foot

yd - yard

mi - mile

Equal to

1 mi = 1,760 yd = 5,280 ft = 63,360 in

1 yd = 3 ft = 36 in

1 ft = 12 in

US = SI

1 in = 25.4 mm

1 in = 2.54 cm

1 in = 0.0254 m

1 ft = 304.8 mm

1 ft = 30.48 cm

1 ft = 0.3 m

1 yd = 914.4 mm

1 yd = 91.44 cm

1 yd = 0.9144 m

1 mi = 1,609 m

1 mi = 1.6 km

Mass

Metric (SI)

Abbreviations

mcg - microgram

mg - milligram

g - gram

kg - kilogram

Equal to

1 kg = 1,000 g = 1,000,000 mg = 1,000,000,000 mcg

1 g = 1,000 mg = 1,000,000 mcg

1 mg = 1,000 mcg

SI = US

1 g = 0.035 oz

1 kg = 35.27 oz

1 kg = 2.2 lb

Imperial (US)

Abbreviations

oz - ounce

lb - pound

t - ton

Equal to

1 t = 2,000 lb = 32,000 oz

1 lb = 16 oz

US = SI

1 oz = 28,350 mg

1 oz = 28.35 g

1 oz = 0.028 kg

1 lb = 454 g

1 lb = 0.45 kg

1 t = 907 kg

Volume

Metric (SI)

Abbreviations

mL - milliliter

L - liter

cc - cubic centimeter

Equal to

1 L = 1,000 mL = 1,000 cc

1 mL = 1 cc

Imperial (US)

Abbreviations

tsp - teaspoon

tbsp - tablespoon

fl oz - fluid ounce

pt - pint

qt - quart

gal - gallon

Medical Conversions

SI = US (volume continued)

- 1 mL (cc) = 0.2 tsp
- 1 mL (cc) = 0.07 tbsp
- 1 mL (cc) = 0.03 fl oz
- 1 L = 203 tsp
- 1 L = 67.6 tbsp
- 1 L = 33.8 fl oz
- 1 L = 2.1 pt
- 1 L = 1.06 qt
- 1 L = 0.26 gal

No longer widely used

- gtts - drops
- (values are highly approximated)
- 1 gtt = 0.05 mL (cc)
- 1 mL (cc) = 20 gtts

Equal to (volume continued)

- 1 gal = 4 qt = 8 pt = 128 fl oz = 256 tbsp = 768 tsp
- 1 qt = 2 pt = 32 fl oz = 64 tbsp = 192 tsp
- 1 pt = 16 fl oz = 32 tbsp = 96 tsp
- 1 fl oz = 2 tbsp = 6 tsp
- 1 tbs = 3 tsp

US = SI

- 1 tsp = 5 mL (cc)
- 1 tbsp = 15 mL (cc)
- 1 oz = 30 mL (cc)
- 1 oz = 0.03 L
- 1 pt = 473 mL (cc)
- 1 pt = 0.47 L
- 1 qt = 946 mL (cc)
- 1 qt = 0.95 L
- 1 gal = 3,785 mL (cc)
- 1 gal = 3.79 L

Temperature

Metric (SI)

Abbreviation

c - celsius

SI = US

- 0 c = 32 f
- 100 c = 212 f

Imperial (US)

Abbreviation

f - fahrenheit

US = SI

- 0 f = -17.8 c
- 100 f = 37.8 c

Temperature conversion formulas

$$c = (f - 32) \times (5 / 9)$$

Example using 98.6 f

$$c = (98.6 - 32) \times (5 / 9)$$

$$c = 66.6 \times 0.556$$

$$c = 37$$

$$37 c = 98.6 f$$

$$f = c \times (9 / 5) + 32$$

Example using 37 c

$$f = 37 \times (9 / 5) + 32$$

$$f = 37 \times 1.8 + 32$$

$$f = 66.6 + 32$$

$$f = 98.6$$

$$98.6 f = 37 c$$

Time

Abbreviations

- s (sec) - second
- m (min) - minute
- hr - hour
- d - day
- wk - week
- mo - month
- yr - year

Equal to

- 1 yr = 12 mo = 52 wk = 365 d = 8,760 hr = 525,600 m = 31,536,000 s
- 1 mo = 4.3 wk = 30 d = 730 hr = 43,800 m = 2,628,000 s
- 1 wk = 7 d = 168 hr = 10,080 m = 604,800 s
- 1 d = 24 hr = 1,440 m = 86,400 s
- 1 hr = 60 m = 3,600 s
- 1 m = 60 s