# **Normal values**

**Note.** Some biological measures have been extracted from the text and listed here for easy reference. In some cases slightly different 'normals' may be found in other texts and used by different medical practitioners.

### Metric measures, units and SI symbols

Name	SI unit	Symbol
Length	metre	m
Mass	kilogram	kg
Amount of substance	mole	mol
Pressure	pascal	Pa
Energy	joule	L

Decimal multiples and submultiples of the units are formed by the used of standard prefixes.

Multiple	Prefix	Symbol	Submultiple	Prefix	Symbol
10 <sup>6</sup>	mega	м	10-1	deci	d
10 <sup>3</sup>	kilo	k	10-2	centi	c
10 <sup>2</sup>	hecto	h	10-3	milli	m
101	deca	da	10-6	micro	μ
			10.9	nano	n
			10-12	pico	р
			10-15	femto	f

Conversion table for kPa/mmHg (for e.g. capillary pressures)

1 mmHg	=	0.13 kPa
1 kPa	=	7.5 mmHg
35 mmHg	=	4.7 kPa
25 mmHg	=	3.3 kPa
15 mmHg	=	2.0 kPa
10 mmHg	=	1.3 kPa

## Hydrogen ion concentration (pH)

Neutral = 7 Acid = 0 to 7 Alkaline = 7 to 14

Normal pH of some body fluids		
Blood	7.35 to 7.45	
Saliva	5.4 to 7.5	
Gastric juice	1.5 to 3.5	
Bile	6.0 to 8.5	
Urine	4.5 to 8.0	

### Some normal plasma levels in adults

Calcium	2.12 to 2.62 mmol/l	(8.5 to 10.5 mg/100 ml)
Chloride	97 to 106 mmol/l	(97 to 106 mEq/l)
Cholesterol	3.6 to 6.7 mmol/l	(140 to 260 mg/100 ml)
Glucose	3.5 to 8 mmol/l	(63 to 144 mg/100 ml)
Fasting glucose	3.6 to 5.8 mmol/l	(65 to 105 mg/100 ml)
Potassium	3.3 to 4.7 mmol/l	(3.3 to 4.7 mEq/l)
Sodium	135 to 143 mmol/l	(135 to 143 mEq/l)
Urea	2.5 to 6.6 mmol/l	(15 to 44 mg/100 ml)

## **Arterial blood gases**

PO,	12 to 15 kPa	(90 to 110 mmHg)
$PCO_2$	4.5 to 6 kPa	(34 to 46 mmHg)
Bicarbonate	21 to 27.5 mmol/1	
H⁺ ions	36 to 44 nmol/1	(7.35 to 7.45 pH units)