

Normal Physiology

Age	RR (/min)	HR (/min)	SBP (mmHg)
0-1 m	30 - 60	110 - 160	65 - 90
1-12 m	30 - 40	110 - 160	70 - 90
1-2 y	25 - 35	100 - 150	85 - 95
2-5 y	25 - 30	95 - 140	80 - 110
5-12 y	20 - 25	80 - 120	90 - 110
>12 y	15 - 20	60 - 100	100 - 120

Age	♀ W. (kg)	♀ H. (cm)	♂ W. (kg)	♂ H. (cm)
0 m	2.8 - 4.2	46 - 54	2.9 - 4.4	47 - 55
3 m	4.6 - 7.0	56 - 64	4.8 - 7.5	57 - 66
6 m	6.0 - 9.3	62 - 71	6.4 - 10	63 - 73
1 y	8.0 - 12	70 - 80	8.5 - 13	71 - 82
5 y	15 - 25	102 - 120	15.5 - 25	110 - 112
18 y	46 - 80	156 - 180	55 - 94	167 - 194

Age (m)	1-2	2-4	4-6	6-8	8-10	10-12
W. gain (g/w)	175	150	125	100	75	50

W. (kg)	Fluids (ml/kg/24h)	A. (y)	ml/kg/hour
2-8	150	0-1	2-4
6-10	110 - 125	>1	1-2
0-10	100	▲ Urine / Oliguri ▼	
10-20	50	0-1	<1
>20	20	>1	<0.5

Holiday-Segar

Developmental Milestones

Age (m)	Gross motor	Fine motor	Cogn. & Comm.
1-2	Lift head when prone	-	Smile in resp. to face/voice, visual preference for human face
2-3	Head steady in sitting	-	-
3-4	Lift head & chest w. ext. arms	Grasp rattle	Sustain contact, displeasure if soc. contact broken, "aah, ngah"
5-6	Roll over	Transfer objects hand to hand	Monosyllabic babble
6-7	Sit with support	-	Polysyllabic babble, vowel sounds, enjoys mirrors
7-8	Sit without support, crawl	Thumb-finger grasp	Suspicious/afraid of strangers
9-10	Pull to standing, walk holding furniture	Pincer grip, bang objects together	Play peek-a-boo, wave bye-bye, respond to own name
12-18	Walk alone	Turn pages in book, scribble, build 2-cube tower	Speak a few words
4 yrs.	Walk in a straight line, jump on one leg	Button clothes	Answer questions, understand prepositions

Nutrition

0-4 months

Breast milk or formula

4-6 months

Breast milk or formula

Start to introduce small amounts of vegetables, cereals

6-8 months

Breast milk or formula or gruel or cereals

Complete meal (potatoes, meat, vegetables, fruit, berries)

Cow's milk can be used in cooking, but not as a beverage

8-12 months

Two cooked meals a day

From 10-12 months of age milk as a beverage

1-2 years

Regular food

No low-fat products and/or high-fibre foods

Vitamin D supplement

5 drops every day (400 IE/day)

All children from 1 month up to at least 2 years of age

Low intake/sun exposure may need suppl. till school age

Salt intake

No extra salt added to food for children below 1 year

Food items *not suitable* for children below 1 year

Spinach, mangold, and beetroot – high levels of nitrate

Honey – may contain C. Botulinum spores

Vaccinations (Swe)

Age	Vaccination	Dose
3 m	Diphtheria, Tetanus, Pertussis, Polio, Hib, S. Pneumoniae	I
5 m	Diphtheria, Tetanus, Pertussis, Polio, Hib, S. Pneumoniae	II
12 m	Diphtheria, Tetanus, Pertussis, Polio, Hib, S. Pneumoniae	III
18 m	Measles, Mumps, Rubella	I
5-6 y	Diphtheria, Tetanus, Pertussis, Polio	IV
6-8 y	Measles, Mumps, Rubella	II
10-12 y	HPV (girls born 1999 or later)	I,II,III
14-16 y	Diphtheria, Tetanus, Pertussis	V
Risk patients	Hepatitis B x 3 Tuberculosis at 6 m	-

Children born before and during 2001 follow another schedule from 5-6 years of age

Reflexes

Primitive	Postural
Moro Sudden extension of the head causes symmetrical extension, followed by flexion of the arms	Labyrinthine rigthing Head moves in opposite direction to which the body is tilted
Grasp Flexion of fingers when an object is placed in the palm	Postural support When held upright, legs take weight and may push up (bounce)
Rooting Head turns to the stimulus when touched near the mouth	Lateral propping In sitting, the arm extends on the side to which the child falls as a saving mechanism
Stepping response Stepping movements when held vertically and dorsum of feet touch a surface	Parachute When suspended face down, the arms extend as though to save theme self
Assym. tonic neck reflex Lying supine, the infant adopts an outstretched arm to the side to which the head is turned	

The primitive reflexes present at birth gradually disappears as postural reflexes develop, which are essential for independent sitting and walking

Physical examination

General condition / appearance

- Tiredness / Movement / Speech / Adeq. devel. for age / Temperature
- Pallor / Cyanosis / Icterus / Petechiae / Turgor

Head

- Size / Shape / Fontanelle (<8-12 months) / Sutures

Eyes and Ears

- Movement / Pupil size/reflex/ Red reflex / Squint / Sunset gaze

Mouth and Throat

- Cleft lip/palate / Teeth / Tongue / Tonsils / Sucking

Lymph nodes

- Neck / Axilla / Groin

Circulation

- Heart rate & rhythm / Murmurs / Capillary refill time / Femoral pulses

Respiration

- Resp. rate / Recessions / Nasal flaring / Wheezing / Crackling / Stridor

Neurology

- Spontaneous movement / Tonus / Neck stiffness / Babinski's sign
- Reflexes: Moro / Suck / Grasp

Abdomen

- Liver (<1 cm below costal ridge) / Kidneys / Spleen / Umbilicus

Genitalia

- Outer genitalia / Discharge / Testicles / Cremaster reflex

Hips

- Symmetry / Ortolani's test / Barlow's test / Abduction test (>60-70°)

Back: Entire spinal column and Anus

<2-3 months: supine position / otherwise in parents lap / **Remember growth charts**

Check-ups (Swe)

Age	Profession	Assessment/Action
0-10 d	Nurse	Home visit
2-8 w	Nurse	Growth assessment and counselling, once a week
6-8 w	Doctor, nurse	Psychomotor development
3 m	Nurse	Vaccination
3-5 m	Nurse	Growth assessment and counselling, every other week
5 m	Nurse	Vaccination
6 m	Doctor	Check-up
6-12 m	Nurse	Growth assessment and counselling, once a month
10/12 m	Doctor	Check-up
12 m	Nurse, dentist	Vaccination Dental health care information
18 m	Nurse	Vaccination
3 y	Nurse	Language development Child security information
4 y	Nurse	Vision, hearing, language, and psychomotor development Child security information
5.5 y	Doctor, nurse	Vaccination School assessment Child security information

Apgar score

Apgar Sign	2	1	0
Heart Rate Pulse	>100/min	>100/min	Absent
Breathing Rate and effort	Cries well	Irregular	Absent
Grimace Responsiveness or reflex irritability	Pulls away, sneezes, coughs, or cries with stimulation	Facial movement only with stimulation	Absent
Activity Muscle tone	Active, spontaneous movement	Arms and legs flexed with little movement	No movement, floppy tone
Appearance Skin colouration	Normal colour (also hands and feet are pink)	Normal colour (but hands and feet are bluish)	Bluish-grey or pale all over

This test is done to determine whether a newborn needs help breathing or is having heart trouble

Normal Results: 7-10

10 is unusual, almost all newborns lose 1 point for blue hands and feet

Abnormal results: 0-6

Signals that the baby needs medical attention

Low Apgar score is often caused by:

Difficult birth, C-section, Fluid in the baby's airway

A baby with a low Apgar score may need:

- Oxygen and clearing out the airway to help with breathing
- Physical stimulation to get the heart beating at a healthy rate

Most of the time, a low score at 1 minute is near-normal by 5 minutes

*A lower Apgar score does not mean a child will have serious or long-term health problems
The Apgar score is not designed to predict the future health of the child*