

Glossary

Achondroplasia - an inherited problem with the growth of cartilage in the long bones and skull; characterized by short stature

Anal stenosis - a condition in which the anus is narrowed

Angelman syndrome - a genetic disorder characterized by mental retardation, hyperactivity, and unprovoked laughter

Anthropometer - an instrument for measuring dimensions of the human body; arm span measurements are made with an anthropometer, a stainless steel detachable rod, approximately seven feet long with etched gradations to 0.1 cm or 1/8 inch and one movable sleeve

Anticonvulsant - an agent used to prevent or minimize the occurrence or severity of seizures; medication-nutrient interactions can include interference with metabolism of folic acid, carnitine and vitamins B6, B12, and D

Arm span - the distance between a child's extended right and left middle fingers, measured across the back; sometimes used as an estimator of stature (length or height)

Arnold Chiari malformation - a malformation that can accompany myelomeningocele and other neural tube disorders where the cerebellum and medulla oblongata protrude into the spinal cord

Aspiration - inspiratory sucking into the lungs of foreign material, including food and liquid

Athetosis or diskinesis - a condition characterized by involuntary, slow, writhing continuous movements; seen in some neurological disorders, e.g., cerebral palsy

Autism spectrum disorders - a group of pervasive developmental disorders; diagnostic criteria include communication problems, ritualistic behaviors and inappropriate social interaction

Autonomic dysreflexia - a condition resulting from the blocked function of the autonomic nervous system that occurs in individuals with paralysis; caused by simultaneous sympathetic and parasympathetic activity; symptoms include hypertension and bradycardia

Body Mass Index (BMI) - an indicator of weight and stature proportionality; $BMI = \text{weight} / \text{height}^2$ (kg/m²)

Bronchopulmonary dysplasia (BPD) - a chronic lung disorder that is most common among children who were born prematurely, with low birthweights, and who received prolonged mechanical ventilation; nutritional consequences can include feeding difficulties, slow growth and increased energy needs

Caliper - an instrument with two hinged jaws used for measuring the thickness or diameter of an object; often used to measure skinfold thickness

Celiac disease - a disease characterized by sensitivity to gluten, with chronic inflammation of intestinal mucosa; symptoms include diarrhea, malabsorption, and steatorrhea

Cerebral palsy - a motor nerve disorder caused by injury to the central nervous system; symptoms depend on the area of the brain involved and the severity of the damage; major types include spastic, athetoid and ataxic quadriplegia or diplegia

Cleft lip - a fissure (or fissures) in the upper lip, frequently associated with cleft palate

Cleft palate - a "hole" in the palate (roof of the mouth) caused by a failure of the palate to close during gestation; surgical repair of the cleft is generally done after one to two years of age

Contractures - static muscle shortening resulting from tonic spasm or fibrosis; frequently seen in individuals with cerebral palsy

Cross-sectional - a study in which a group (or groups) of individuals are composed into one large sample and studied at only a single point in time

Crown-rump length - length between a child's head and buttocks, sometimes used as an estimator of length

Cystic fibrosis (CF) - an inherited disorder of the exocrine glands, primarily the pancreas, pulmonary system and sweat glands, characterized by abnormally thick luminal secretions

deLange syndrome - a congenital syndrome characterized by short stature, microcephaly, delayed development and mental retardation, a number of distinct facial features, and upper limb anomalies; also called Cornelia deLange syndrome and Brachmann-deLange syndrome

Deletion - loss of part of a chromosome

Developmental delay- a term referring to a disorder in an individual who is not developing according to the expected time frame; often used in place of the term mental retardation in children younger than 5 years of age

Developmental disability - a disability that begins during the developmental period (before age 22 years); federal legislation defines developmental disability in the Developmental Disabilities Assistance and Bill of Rights Act Amendments of 2000 (PL 106-402)

Disomy - inheritance of both copies of a chromosome from the same parent



Down syndrome - trisomy 21; a genetic disorder in which an individual has an extra 21st chromosome, typically characterized by low muscle tone, cardiac problems, GI malformations and a distinct facial appearance

Duchenne muscular dystrophy - the most common of several childhood muscular dystrophies, it is an inherited disorder (X-linked recessive) with progressive degeneration of muscle, onset is generally before age 6 years

Duodenal atresia - obstruction of the duodenum of the intestine

Dysgeusia - impaired sense of taste

Early intervention services - established by Part H of PL 97-457 of 1986 (now Part C of the IDEA of 1997); community-based therapeutic and educational services for infants and children under 3 years of age with developmental delays

Encopresis – leakage of stool (often around impaction) not due to organic defect or illness after 4 years of age (chronological or developmental); includes constipation and overflow incontinence (retentive encopresis); can develop initially for a variety of psychological and physiologic reasons

Fetal alcohol syndrome - a syndrome resulting from the teratogenic effects of alcohol during fetal development; possible symptoms include developmental delay, short stature, microcephaly and hyperactivity

Fragile X syndrome - a syndrome resulting from a fragile or broken site on the X chromosome, often characterized by mental retardation, hypotonia and hyperactivity

Frankfort plane - a line extending from the most inferior part of the orbital margin to the left trignon (the trignon is the deepest point in the notch superior to the tragus of the auricle); for length and height measurements, when the head is positioned correctly, the subject's line of sight is parallel to the headboard; also called Frankfort horizontal plane

Gag reflex - a normal reflex triggered by touching the soft palate or back of the throat that raises the palate, retracts the tongue and contracts the throat muscles; protects the airways from a bolus of food or liquid

Gastroesophageal reflux (GER) - regurgitation of the contents of the stomach into the esophagus, where they can be aspirated; often results from a failure of the esophageal sphincter to close; commonly leads to feeding problems in infants and children with neuromuscular disorders; also gastroesophageal reflux disease (GERD)

Gastrostomy tube - a feeding tube surgically placed through an opening from the abdomen to the stomach; tubes can also be placed endoscopically

Granulation tissue - connective tissue that forms on the surface of a healing wound, ulcer, or inflamed tissue surface

Hirschprung's disease - a congenital absence of nerves in the smooth muscle wall of the colon that results in buildup of feces, and widening of the bowel (megacolon), symptoms include vomiting, diarrhea, and constipation; surgical repair in early childhood is usually successful

HIV/AIDS - human immunodeficiency virus (HIV) is the retrovirus that causes acquired immunodeficiency syndrome (AIDS); symptoms of HIV infection can include opportunistic infections, growth problems, diarrhea, developmental regression and immune system dysfunction

Hurler syndrome - a mucopolysaccharidosis characterized by cerebral degeneration and storage of mucopolysaccharides; symptoms include severe abnormality in the development of skeletal cartilage and bone, characteristic facial features, and severe mental retardation; Hurler syndrome is autosomal recessive, and is usually fatal during childhood

Hypersensitivity - abnormal sensitivity, exaggerated response by the body to a stimulus, such as taste, touch or smell

Hypotonia - diminished muscle tone

Hypertonia - increased muscle tone

Impaction - the presence of a large, hard mass of stool in the rectum or colon

Inflammatory bowel disease (IBD) - a term that includes ulcerative colitis and Crohn's disease, marked by chronic inflammation and ulceration of the lining of the large intestine and/or the small intestine

Jejunum - the portion of small intestine between the duodenum and the ileum

Knee height - the distance from the top of the patella to the bottom of the foot; sometimes used as an estimator of stature

Lipid pneumonia - a condition marked by inflammatory and fibrotic changes in the lungs due to the inhalation of oil

Longitudinal - a study in which an individual or a group of individuals is observed over a period of time

Megacolon - abnormal widening of the colon that may be inborn or may result from chronic constipation or obstipation

Mental retardation - significantly subaverage intellectual functioning, accompanied by deficits in adaptive functioning and manifested before age 18 years; subaverage intellectual functioning is defined as an IQ score of 70 or below (e.g., on the WISC-R, Stanford-Binet, K-ABC or other individually-administered psychometric test)

Muscular dystrophy - a general term for a number of hereditary, progressive degenerative disorders affecting skeletal muscles, and often other organ systems;

types of muscular dystrophy include Duchenne and Becker muscular dystrophy, spinal muscular atrophy and myotonic dystrophy

Myasthenia gravis - a neuromuscular disorder, with onset primarily in adulthood, characterized by fluctuating muscle weakness, especially in the face and throat

Myelomeningocele - a congenital defect that results in a hernia (containing the spinal cord, the meninges and cerebral spinal fluid) along the spinal column, also called spina bifida

Myenteric plexus - unmyelinated fibers and cell bodies in the muscular coat of the esophagus, stomach, and intestines

Myotonic dystrophy - an inherited (autosomal dominant) neuromuscular disorder that occurs in adults, characterized by progressive muscle weakness and wasting and myotonia; onset is usually in the third decade

Neurogenic bladder - loss of normal bladder function because of nervous system impairments (e.g., spinal cord injury, myelomeningocele); bladder may be underactive (unable to empty well) or overactive and spastic (emptying by uncontrolled reflexes)

Neurogenic bowel - loss of normal bowel function because of nervous system impairments (e.g., spinal cord injury, myelomeningocele); bowel may be overactive, leading to rectal distention or underactive, leading to constipation, and incontinence

NHANES - National Health and Nutrition Examination Survey; a series of periodic surveys that collect height, weight and other information on the US population; data from NHANES was used to construct the 1977 NCHS growth charts and the 2000 CDC Growth Chart: United States

Obstipation - constipation caused by a blockage, resulting in an accumulation of stool with the development of colon distension; leads to fecal impaction

Osmolality – the concentration of a solution expressed in osmoles of solute particles per kilogram of solvent. Infants and some children may be unable to tolerate a formula with a high osmolality

Osteomalacia - softening of the bone because of a loss of calcium in the bone material; can be caused by inadequate vitamin D intake and/or disorders that interfere with the absorption of vitamins and minerals

Palmar grasp - hand movement in which the palm (not the fingertips) is used to pick up an item; important precursor to self-feeding

Palmomental reflex - a reflex in which stroking the palm of the hand causes a wrinkling of the mentalis muscle (an elevation of the angle of the mouth) on the same side of body

Percutaneous endoscopy - one method of placing a feeding tube, where the feeding tube is placed using an endoscope

Peristalsis - rhythmic, wavelike contraction of smooth muscle in intestines or other tubular structures; circular contraction and relaxation of the tube propels its contents

Phasic bite reflex - pressure on the gums causes rhythmic opening and closing of the jaws

Phenylketonuria - an inherited (autosomal recessive) metabolic disorder, marked by the deficiency of the enzyme that converts phenylalanine (an amino acid) to tyrosine; accumulation of phenylalanine in the blood can lead to mental retardation and other neurologic problems; treatment includes a low-phenylalanine diet and a phenylalanine-free medical food

Pincer grasp - the ability to grasp a small object between the tips of the thumb and index finger

Prader-Willi syndrome - a genetic disorder of chromosome 15 marked by hypotonia, short stature, hyperphagia, cognitive impairment, poor feeding and growth in infancy, and when not carefully managed, characterized by obesity

Premature (infant) - an infant born before 37 weeks gestation

Pyloric sphincter - a circular layer of muscle that separates the stomach from the duodenum of the small intestine

Rett syndrome - an X-linked disorder marked by progressive neurological deterioration, seizures and cognitive impairment

Rooting reflex - a reflex present in newborns; when an infant's cheek is touched or stroked, he turns his head toward the touched side and begins to suck

Rotary chewing - the ability to rotate the jaw to grind and mash food

Russell-Silver syndrome - an inherited condition characterized by short stature, skeletal asymmetry, café au lait spots, and a small triangular face

Short bowel syndrome (SBS) - the loss of area in the intestine that causes malabsorption

Sitting height - length between a child's head and buttocks, sometimes used as an estimator of height

Skinfold thickness - a measure of the amount of fat under the skin; the measurement is made with a caliper and used to estimate body fatness

Smith-Lemli Opitz syndrome - an autosomal recessive condition characterized by dysmorphic features, short stature, abnormal facies, psychomotor retardation, and genital anomalies in males

Spastic or hypertonic cerebral palsy (CP) - cerebral palsy that is associated with increased muscle tone

Spina bifida - a congenital defect that results in a hernia (containing the spinal cord, the meninges and cerebral spinal fluid) along the spinal column, also called myelomeningocele

Spinal muscular atrophy - an inherited neuromuscular disorder that affects motor neurons, which control movement of voluntary muscles; three groups, based on age of clinical onset, are recognized

Static encephalopathy - encephalopathy (brain abnormality) that will not progressively worsen

Subcutaneous edema - abnormal pooling of fluid in tissue below the skin

Subscapular skinfold measure - measurement of the skin and subcutaneous fat layer below the shoulder blade, often used in conjunction with triceps skinfold and arm muscle circumference measurements to estimate fat stores

Tibia length - measurement of the tibia; sometimes used as an estimator of stature

Tongue thrust - forceful protrusion of the tongue, often in response to an oral stimulus

Triceps skinfold measure - measurement of the skin and subcutaneous fat layer around the triceps muscle, used with arm circumference measurement to estimate fat and muscle stores

Trisomy 13 - a genetic disorder in which an individual has an extra 13th chromosome, characterized by mental retardation and malformed ears in all patients, and in most patients cleft lip or palate, small mandible, polydactyly, cardiac defects, convulsions, renal anomalies, intestinal malrotation, and dermatoglyphic anomalies; the condition is usually fatal within several weeks or months of birth

Trisomy 18 - a genetic disorder in which an individual has an extra 18th chromosome, characterized by mental retardation, abnormal skull shape, malformed ears, and cardiac defects; the condition is usually fatal within several weeks or months of birth

Trisomy 21 - a genetic disorder in which an individual has an extra 21st chromosome, typically characterized by short stature, low muscle tone, cardiac problems, GI malformations and a distinct facial appearance; also called Down syndrome

Turner syndrome - a disorder in females marked by the absence of one X chromosome, typically characterized by ovarian failure, genital tissue defects, cardiac problems, and short stature



Type 1 diabetes - a disorder primarily caused by failure of the pancreas to release enough insulin, characterized by hypo- and hyperglycemia, glucosuria, water and electrolyte loss, ketoacidosis and coma; long-term complications can affect the nervous, renal and cardiovascular systems

Videofluoroscopic swallowing study (VFSS) - a radiologic procedure used to evaluate the swallowing mechanism; foods are mixed with barium and feeding is recorded and observed

Williams syndrome - a genetic disorder of chromosome 7 characterized by distinctive facial features, growth and developmental delays, varying degrees of learning disabilities, cardiac defects and sometimes hypercalcemia in infancy

Wilson's disease - an inherited (autosomal recessive) disorder of copper storage, which leads to renal, cardiac, pancreatic and liver disease and central nervous system manifestation

