A Guide to Developmental Disorders
Part 5
Physical Disabilities

Contents

1.Introduction

There are many physical disabilities and / or problems of children. Some of them are discussed here. Some of them may be purely physical , or may have some behavioral or neurological problem associated with it. Here are some common ones. If you have some specific problem not mentioned here, internet is a wonderful way to find out about it.

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2.Swallowing Disorders in Children

Swallowing disorders, also called *dysphagia* (dis FAY juh), can occur at different stages in the swallowing process:

- Oral phase-- sucking, chewing, and moving food or liquid into the throat
- Pharyngeal phase-- triggering the swallowing reflex, squeezing food down the throat, and closing off the airway to prevent food or liquid from entering the airway (*aspiration*) or to prevent choking
- Esophageal phase-- relaxing and tightening the openings at the top and bottom of the feeding tube in the throat (*esophagus*) and squeezing food through the esophagus into the stomach

Some **causes of feeding and swallowing problems** in children are:

- Nervous system disorders (cerebral palsy, meningitis, encephalopathy)

- Gastrointestinal conditions
- Prematurity/low birth weight
- Heart disease
- Cleft lip or palate
- Conditions affecting the airway

Signs and symptoms of feeding and swallowing problems in very young children may include:

- Arching or stiffening of the body during feeding
- Irritability or lack of alertness during feeding
- Failure to accept different textures of food
- Prolonged feeding times (more than 30 minutes)

General signs may include:

- Excessive drooling or leaking food/liquid from the mouth
- Gurgly, hoarse, or breathy voice quality
- Coughing or gagging during meals
- Recurring pneumonia or respiratory infections
- Difficulty coordinating breathing with eating or drinking
- Frequent spitting up
- Less than normal weight gain or growth

As a **result** , children may have :

- Dehydration or poor nutrition
- Risk of aspiration (food or liquid entering the airway)
- Pneumonia or repeated upper respiratory infections that can lead to chronic lung disease
- Embarrassment or isolation in social situations involving eating

Seek help from your Doctor.

For More Information Please Visit

IFFGD, the International Foundation for Functional Gastrointestinal Disorders
http://www.iffgd.org/GIDisorders/GIKids.html

ASHA organization
http://www.asha.org/public/speech/swallowing/Swallowing-Disorders-in-Children.htm

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3.Bed wetting

Overview

The development of continence in a child is dependent on three variables, all maturing parallel to each other -

- Development of normal bladder capacity
- Mature functioning of the urethra-sphincter
- Development of the brain and nerve pathways that control voluntary voiding

Children who wet the bed beyond the age of six generally need only to wait longer for their bladders to mature. Nerve pathways between the pelvis and brain may not yet be fully developed in these children or they may still have small bladders. Some children sleep so soundly that they don't wake up even when their bladder is full and needs to be emptied. A physical or medical problem such as diabetes or a urinary tract infection can also cause the bed-wetting, so if it persists in your child past age six, you should discuss the situation with your child's pediatrician.

Bed-wetting is usually divided into two main categories, primary (ninety percent) and secondary (five to ten percent).

Children with primary bed-wetting have never experienced an extended period of dryness (two to three months) without the use of some type of treatment or medication. The usual cause of primary bed-wetting is an irritable bladder with too small a capacity.

Secondary bed-wetting occurs when a child has stopped bed-wetting for an extended period of time (usually six months) and then resumes.

Such factors as diabetes, urinary tract abnormalities, anatomic abnormalities, and psychological factors may cause secondary bed-wetting.

In rare cases, bed-wetting can be the result of narrowing of the end of the urethra, which can be widened through stretching. Children with secondary bed-wetting often have problems associated with the complex of attention deficit disorders (ADD).

Diagnosis

A pediatric urologist should evaluate children who have any signs or symptoms of bladder and sphincter dysfunction, including night time wetting that persists beyond the age of 6 years, or daytime incontinence.

As part of an evaluation, the urologist will ask for a medical history about both parents and the child. The general history includes information about bowel function, family-related disorders, neurologic diseases and congenital abnormalities.

An extremely important part of the history is the child's psychosocial status and family situation since bladder problems, especially bed-wetting, are early signs of child abuse.

First, the doctor does a general examination of the child including reflexes, the abdomen, genitalia and rectal area. The doctor may ask parents about the child's voiding habits as certain awkward positions may affect bladder emptying (for example, sitting on the toilet with legs crossed activates the pelvic floor muscles, which obstructs the flow of urine from the bladder.) Often the doctor will recommend that the parents observe the child during voiding to determine possible problems with the child's position.

Initial tests include a urine test for infection, post-void residual measurement, x-rays to determine urine flow and an ultrasound to detect any serious problems in the bladder or kidneys. More invasive urodynamic tests may be necessary in children who have more complex problems.

For More Information Please Visit

Seek wellness

http://www.seekwellness.com/incontinence/bladder_disorders_in_children.htm

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4.Asthma

What is it ?

Asthma is a condition that affects a person's airways, which are also called breathing tubes or bronchial tubes. These tubes lead from the windpipe, or trachea into the lungs.

For most kids, breathing is simple: They breathe in through their noses or mouths and the air goes into the windpipe. From there, it travels through the airways and into the lungs. But for kids with asthma, breathing can be a lot more difficult because their airways are very sensitive.

An asthma flare-up, which some people call an asthma attack, happens when a person's airways get narrower and it becomes a lot harder for air to get in and out of the lungs. Sometimes the swollen airways produce extra mucus, which makes things pretty sticky, so it's easy to see why it's hard to breathe.

In between flare-ups, a kid's breathing can be totally normal or seem that way. But during a flare-up, it can feel like the person is breathing through a straw. A kid with asthma may wheeze (a whistling sound when he or she breathes), cough, and feel tightness in the chest. An asthma flare-up can get worse and worse if a kid doesn't use asthma medicine. After an asthma flare-up, the airways almost always return to the way they were before, although it can take several days.

An asthma attack is when your lungs aren’t getting enough air to breathe. Your child might be having an asthma attack if he or she has:

- Trouble breathing
- Wheezing
- Coughing
- Chest pain
- Chest tightness

Symptoms

The most common symptoms include recurring episodes of coughing, wheezing and difficulty breathing, although some children just have coughing and don't wheeze with each episode. There is no cure for asthma, but with the right management, your Pediatrician can help to get your child's asthma under control.

Asthma is a chronic disease, but many children do outgrow it as they get older, although some continue to have problems as teens and adults. With the proper management, your child should be able to run and play without any limitations.

If your child is not improving with his current medication regimen, then he may need a step up in his therapy, which can include increasing the amount of anti-inflammatory medications he is on. Also, be sure that he does not have uncontrolled allergies or gastroesophageal reflux, both of which can make asthma symptoms worse.

Causes

It can run in families, and is frequently Allergy related. Dust, Motes, Fur of animals, Pollen, perfumes, cigarette smoke, can all, cause it.

Sometimes an infection can be a trigger and set off an asthma flare-up. If a kid comes down with a cold or the flu, his or her airways may become more sensitive than usual. In some kids, cold air itself can cause an asthma flare-up, and so can exercise.

In fact, some kids have what's called exercise-induced asthma. This means they have breathing problems only when they exercise.

Treatment

Kids who have asthma should try to avoid things that can cause their airways to tighten. But some triggers - like cats, colds, and chalk dust - can't always be avoided. That's why kids who are sensitive to those things must manage their asthma by taking medication.

Not every kid's asthma is the same, so there are different medicines for treating it.

Some kids need to take asthma medication only once in a while, when they have a flare-up. This is called rescue medicine because it works fast to open the airways, so the person can breathe.

Other kids may need to take controller medicine every day. Controller medicine works to keep flare-ups from happening.

A kid who knows in advance that he or she will be around allergens or other triggers may need to take a different kind of medication that will keep the airways open.

And kids who have exercise-induced asthma can take medication ahead of time so they'll be able to finish all their laps around the track. Whatever their triggers are, kids who have asthma can use a peak flow meter to get an idea of how well they are breathing that day and whether they need to take any medicine.

Asthma medicine often is taken through an inhaler (say: in-**hay**-lur). An inhaler is a plastic tube that holds a container of medicine. You hold the inhaler up to your mouth and breathes in. The medicine comes out in a mist that goes into the lungs. The medicine in the mist relaxes the airways, so the person can breathe easier.

Sometimes a kid uses an inhaler and something called a spacer. A spacer is a piece that attaches to the inhaler and holds the mist in one place, between the

inhaler and the kid's mouth. It lets the kid breathe in when he or she is ready, so it's easier to inhale all the medication.

Sometimes kids take other asthma medicines by swallowing them.

Whatever medications a kid takes, the goal is always the same: to get the asthma flare-ups under total control, so the triggers don't create problems.

A lot of kids find their asthma goes away or becomes less serious as they get older. Some doctors think this happens because the airways grow wider as a kid grows up and gets bigger. With more room in the airways, the air has an easier time getting in and out.

Some people do have asthma as adults, but it doesn't have to slow them down. Plenty of Olympic athletes and other sports stars manage their asthma, but keep on playing. Asthma hasn't kept pro football player Jerome Bettis from rushing for more than 12,000 yards so far in his career.

For More Information please visit

Kid's Health
http://www.kidshealth.org/kid/health_problems/allergy/asthma.html

No Attacks http://www.noattacks.org/about.html

American Lung Association
http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=22691

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5.Cleft palate / lip

What is it ?

Oral-facial clefts are one of the most common birth defects in which the tissues of the mouth or lip don't develop properly during pregnancy. Children of Asian, Latino, or Native American descent seem more susceptible to it. This is also known as Hare lip.

These are completely treatable by reconstructive surgery that is done in the first 12 -18 months of child.

Cause

Oral clefting occurs when the tissues of the lip and/or palate of a fetus don't grow together early in pregnancy. Children with clefts often don't have enough tissue in their mouths, and the tissue they do have isn't fused together properly to form the roof of their mouths.

The cause is not known for certain , but a genetic connection is suspected. This problem is seen to be running in families. There may also be environmental factors like use of drugs, alcohol, tobacco etc. by the pregnant woman .

Symptom

A cleft lip is a narrow opening or gap in the skin of the upper lip that extends all the way to the base of the nose.

A cleft palate is an opening between the roof of the mouth and the nasal cavity.

Clefting can happen to be either one or both of these conditions.

More boys have a cleft lip, while more girls have cleft palate without a cleft lip.

Diagnosis

It is a very visible flaw and can also be detected through a prenatal ultrasound test even before the birth.

Complications

This problem makes the child more susceptible to ear nose and throat infections and speech defects. Dental problems are also common.

Feeding is complicated for an infant with a cleft lip or palate. A cleft lip makes it difficult to suck on a nipple, while a cleft palate may cause milk to be accidentally taken up into the nasal passage. Special nipples and other devices are available to help for this.

Treatment

Now the reconstructive and plastic surgery can repair the problem and also enhance appearance.

Treatment usually begins early and depending on the extent of the damage can take more than one surgery. A variety of specialists are needed for the treatment . they are the ENT specialist, Dentist, orthodontist, oral surgeon, Plastic Surgeon and maybe speech pathologist or therapist.

The child may need dental attention and also speech therapy.

For More Information Please Visit

Cleft Palate Foundation http://www.cleftline.org/

Kids health http://www.kidshealth.org/parent/medical/ears/cleft_lip_palate.html

Wide Smiles Cleft lip and Palate Resource http://www.widesmiles.org/

Family Doctor http://familydoctor.org/034.xml

AboutFace International http://www.aboutfaceinternational.org

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6.Other Birth defects

Birth defects, also called congenital anomalies, are physical abnormalities that occur before a baby is born; they are usually obvious at birth or by 1 year of age.

Birth defects can involve any part of any organ in the body. Some birth defects are more common than others. Birth defects are the leading cause of death in infants in the United States.

Other Birth Defects

Major System	Birth Defect	What Happens	Treatment
Heart	Hypoplastic left heart syndrome	Underdevelopment of the left ventricle, leading to inability to pump blood to the body	Separate operations to rebuild the left ventricle or a heart transplant
Digestive tract	Omphalocele and gastroschisis	Hole in or weakening of abdominal muscles, allowing internal abdominal	Surgery to close the abdomen

		organs to protrude externally	
Musculoskeletal	Missing limb	Limb may not form or may be "amputated" in the womb	Artificial limb and therapy to help child adapt and be functional
	Prune-belly syndrome	Missing layers of abdominal muscles, causing the abdomen to bulge; urinary system defects often develop	Surgery if a urinary system defect blocks urine flow
Neurologic	Porencephaly	Brain tissue is missing and is replaced with fluid-filled sacs	No treatment is available; ventricular shunt may decrease pressure
	Hydranencephaly	Severe porencephaly with little remaining brain tissue	No treatment is available
Genital	Vanishing testes	Both testes are absent at birth	Supplemental male hormone (testosterone) beginning before puberty
Eye	Congenital glaucoma	Glaucoma is present at birth; pressure is raised in the eyeball (usually both); the eye may enlarge, and its usual appearance may be distorted	Surgery usually performed soon after birth; eye drops used until surgery; if the glaucoma is not treated, blindness can result
	Congenital cataracts	Cataracts (cloudy areas) in the lens of the eye are present at birth; usually vision is impaired	Surgery to remove the cataract as soon as possible is the best chance of normal vision

Causes and Risks

Although the cause of most birth defects is unknown, certain genetic and environmental factors increase the chance of birth defects developing. These factors include exposure to radiation, certain drugs, alcohol, nutritional deficiencies, certain infections in the mother, injuries, and hereditary disorders.

Some risks are avoidable. Others occur no matter how strictly a pregnant woman adheres to healthful living practices.

Exposure to Harmful Substances (Teratogens):

A teratogen is any substance that can cause or increase the chance of a birth defect. Radiation (including x-rays), certain drugs, and toxins (including alcohol) are teratogens. Whether or not a birth defect occurs depends on when, how much, and how long the pregnant woman was exposed to the teratogen.

Exposure to a teratogen most commonly affects the fetal organ that is developing most rapidly at the time of exposure. For example, exposure to a teratogen during the time that certain parts of the brain are developing is more likely to cause a defect in those areas than exposure before or after this critical period. Many birth defects develop before a woman knows she is pregnant.

Nutrition:

Keeping a fetus healthy requires maintaining a nutritious diet. For example, insufficient folic acid in the diet increases the chance that a fetus will develop spina bifida or other abnormalities of the brain or spinal cord known as neural tube defects . Cleft lip or cleft palate is also more likely to develop. Maternal obesity also increases the risk of a neural tube defect.

Genetic and Chromosomal Factors:

Chromosomes and genes may be abnormal. These abnormalities may be inherited from the parents, who can be affected by the condition or who can be carriers without symptoms. However, many birth defects are caused by seemingly random and unexplained changes (mutations) in the genes of the child. Most birth defects caused by genetic factors include more than just the obvious malformation of a single body part.

Infections:

Certain infections in pregnant women can cause birth defects. Whether an infection causes a birth defect depends on the age of the fetus. The infections that most often cause birth defects are cytomegalovirus, herpesvirus, parvovirus (fifth disease), rubella (German measles), varicella (chickenpox), toxoplasmosis (which can be transmitted in cat litter), and syphilis. A woman can have such an infection and not know it, because these infections can produce few or no symptoms in adults.

Diagnosis

During pregnancy, doctors assess whether a woman is at increased risk of having a baby with a birth defect.

The chance is higher for women who are older than 35 years; have had frequent miscarriages; or have had other children with chromosomal abnormalities, birth defects, or who died for unknown reasons. These

women may need special tests to find out whether their baby is developing normally.

A prenatal ultrasound can often detect specific birth defects. Sometimes blood tests can also help; for example, a high level of alpha-fetoprotein in the mother's blood may indicate a defect of the brain or spinal cord. Amniocentesis (removing fluid from around the fetus) or chorionic villus sampling (removing tissue from the sac around the developing baby) may be necessary to confirm a suspected diagnosis. Increasingly, birth defects are being diagnosed before the baby is born.

For More Information please visit

MERCK Corporation http://www.merck.com/mmhe/sec23/ch265/ch265a.html

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