

# Cerebral Palsy

## Overview

<http://www.nlm.nih.gov/medlineplus/cerebralpalsy.html#cat1>

[http://en.wikipedia.org/wiki/Cerebral\\_palsy](http://en.wikipedia.org/wiki/Cerebral_palsy)

Cerebral palsy is a **group of disorders** that affect a person's ability to **move and to maintain balance and posture**. The disorders appear in the first few years of life. Usually they do not get worse over time. People with cerebral palsy may have difficulty walking. They may also have trouble with tasks such as writing or using scissors. Some have other medical conditions, including seizure disorders or mental impairment.

*Cerebral* means having to do with the brain. *Palsy* means weakness or problems with using the muscles. Cerebral palsy is caused by damage to the motor control centers of the developing brain and can occur during pregnancy, during childbirth or after birth up to about age three. Resulting limits in movement and posture cause activity limitation and are often accompanied by disturbances of sensation, depth perception and other sight-based perceptual problems, communication ability, and sometimes even cognition; sometimes a form of CP may be accompanied by epilepsy. CP, no matter what the type, is **often accompanied by secondary musculoskeletal problems** that arise as a result of the underlying etiology.

There is no cure for cerebral palsy, but treatment can improve the lives of those who have it. Treatment includes medicines, braces, and physical, occupational and speech therapy.

## Clinical Manifestations

<http://www.cdc.gov/Features/CerebralPalsy/>

[http://www.medicinenet.com/cerebral\\_palsy/article.htm](http://www.medicinenet.com/cerebral_palsy/article.htm)

[http://en.wikipedia.org/wiki/Cerebral\\_palsy](http://en.wikipedia.org/wiki/Cerebral_palsy)

[http://www.medicinenet.com/cerebral\\_palsy/page4.htm#toc1](http://www.medicinenet.com/cerebral_palsy/page4.htm#toc1)

All types of cerebral palsy are characterized by **abnormal muscle tone** (i.e. slouching over while sitting), reflexes, or motor development and coordination. There can be **joint and bone deformities and contractures** (permanently fixed, tight muscles and joints). The classical symptoms are **spasticities, spasms, other involuntary movements (e.g. facial gestures), unsteady gait, problems with balance, and/or soft tissue findings** consisting largely of decreased muscle mass. Scissor walking (where the knees come in and cross) and toe walking (which can contribute to a gait reminiscent of a marionette) are common among people with CP who are able to walk, but taken on the whole, **CP symptomatology is very diverse**. The effects of cerebral palsy fall on a continuum of motor dysfunction which may range from slight clumsiness at the mild end of the spectrum to impairments so severe that they render coordinated movement virtually impossible at the other end the spectrum.

Secondary conditions can include seizures, epilepsy, apraxia, dysarthria or other communication disorders, eating problems, sensory impairments, mental retardation, learning disabilities, and/or behavioral disorders.

Speech and language disorders are common in people with Cerebral Palsy. Speech problems are associated with poor respiratory control, laryngeal and velopharyngeal dysfunction as well as oral articulation disorders that are due to restricted movement in the oral-facial muscles. Overall language delay is associated with problems of mental retardation, hearing impairment and learned helplessness.

General Symptoms:

- seizures
- vision deficiencies (lazy eyes)
- Speech disorders (dysarthria)
- Delayed growth
- Irritability and jitteriness
- feeding and respiratory problems
- lethargy
- coma depending on the severity

## Causes

<http://www.cdc.gov/ncbddd/dd/cp3.htm#causes>

[http://en.wikipedia.org/wiki/Cerebral\\_palsy](http://en.wikipedia.org/wiki/Cerebral_palsy)

[http://www.medicinenet.com/cerebral\\_palsy/page5.htm#tocj](http://www.medicinenet.com/cerebral_palsy/page5.htm#tocj)

Cerebral palsy is caused by brain **damage that affects a child's ability to control his or her muscles**. The part of the brain that is damaged determines what parts of the body are affected. There are many possible causes of the brain damage. Some causes affect how the child's brain develops during the first 6 months of pregnancy. These causes include **genetic conditions** and **problems with the blood supply to the brain**. Other causes of cerebral palsy happen after the brain has developed. These causes can occur during later pregnancy, delivery, or the first years of the child's life. They include **bacterial meningitis and other infections, bleeding in the brain, lack of oxygen, severe jaundice, and head injury**.

Children who are born prematurely or who are very low birth weight (less than 1,500 grams or about 3 1/3 pounds) are more likely to have problems that might lead to cerebral palsy. However, children who are full term and normal birth weight can also have cerebral palsy.

**Between 40% and 50% of all children who develop cerebral palsy were born prematurely.** Premature infants are vulnerable, in part because their organs are not fully developed, increasing the risk of hypoxic injury to the brain that may manifest as CP. A problem in interpreting this is the difficulty in differentiating between cerebral palsy caused by damage to the brain that results from inadequate oxygenation and CP that arises from prenatal brain damage that then precipitates premature delivery.

After birth, other causes include **toxins, severe jaundice, lead poisoning, physical brain injury, shaken baby syndrome, incidents involving hypoxia to the brain (such as near drowning), and encephalitis or meningitis**. The three most common causes of asphyxia in the young child are: choking on foreign objects such as toys and pieces of food, poisoning, and near drowning.

## Additional Information

[http://en.wikipedia.org/wiki/Cerebral\\_palsy](http://en.wikipedia.org/wiki/Cerebral_palsy)

[http://www.medicinenet.com/cerebral\\_palsy/page2.htm#tocd](http://www.medicinenet.com/cerebral_palsy/page2.htm#tocd)

Cerebral palsy (CP) is divided into four major classifications to describe different movement impairments. These classifications also reflect the areas of the brain that are damaged. The four major classifications are:

- **Spastic:** Spastic cerebral palsy refers to a condition in which the muscle tone is increased, causing a rigid posture in one or more extremities [arm(s) or leg(s)]. The spasticity leads to a limitation of use of the involved extremity, largely due to the inability to coordinate movements. Spastic CP can be classified by the region of the body affected.
  - *Hemiplegia:* Both limbs on one side affected
  - *Diplegia:* Lower extremities affected
  - *Monoplegia:* One single limb affected
  - *Triplegia:* Three limbs affected
  - *Quadriplegia:* Four limbs more or less equally affected
- **Ataxic:** Ataxia type symptoms can be caused by damage to the cerebellum. The forms of ataxia are less common types of cerebral palsy, occurring in at most 10% of all cases. Some of these individuals have hypotonia and tremors. Motor skills such as writing, typing, or using scissors might be affected, as well as balance, especially while walking. It is common for individuals to have difficulty with visual and/or auditory processing.
- **Athetoid:** Athetoid or dyskinetic cerebral palsy is mixed muscle tone — both hypertonia and hypotonia. People with athetoid CP have trouble holding themselves in an upright, steady position for sitting or walking, and often show involuntary motions. For some people with athetoid CP, it takes a lot of work and concentration to get their hand to a certain spot (like scratching their nose or reaching for a cup).
- **Hypotonic:** Hypotonia is the opposite of hypertonia; people with hypotonic CP have musculature that is limp, and can move only a little or not at all. Although physical therapy is usually attempted to strengthen the muscles (in a similar way to how PT is used to stretch and loosen the tight muscles of hypertonic individuals), it is not always fundamentally effective.

# Autism/Autism Spectrum Disorders

## Overview

<http://www.ninds.nih.gov/disorders/autism/autism.htm>

<http://en.wikipedia.org/wiki/Autism>

<http://www.nlm.nih.gov/medlineplus/autism.html>

[http://www.nichd.nih.gov/publications/pubs/upload/autism\\_overview\\_2005.pdf](http://www.nichd.nih.gov/publications/pubs/upload/autism_overview_2005.pdf)

Autism (sometimes called "classical autism") is the most common condition in a group of developmental disorders known as the **autism spectrum disorders** (ASDs). Because people with autism can have very different features or symptoms, health care providers think of autism as a "spectrum" disorder including: *Autistic Disorder*, *Asperger syndrome*, and *Pervasive Developmental Disorder Not Otherwise Specified*.

Children with autism might have problems talking with you, or they might not look you in the eye when you talk to them. They may have to line up their pencils before they can pay attention, or they may say the same sentence again and again to calm themselves down. They may flap their arms to tell you they are happy, or they might hurt themselves to tell you they are not. Some people with autism never learn how to talk.

Autism affects information processing in the brain by altering how nerve cells and their synapses connect and organize; how this occurs is not well understood. **The cause of autism is not known.** Autism lasts throughout a person's lifetime. There is no cure, but treatment can help. Treatments include behavior and communication therapies and medicines to control symptoms.

Current figures show that autism occurs in all racial, ethnic, and social groups equally, with individuals in one group no more or less likely to have ASDs than those in other groups. Three groups are at higher-than-normal risk for ASDs, including: **boys**, **siblings of those with ASD**, and **people with certain other mental disorders**.

## Clinical Manifestations

<http://www.ninds.nih.gov/disorders/autism/autism.htm>

[http://www.nichd.nih.gov/publications/pubs/upload/autism\\_overview\\_2005.pdf](http://www.nichd.nih.gov/publications/pubs/upload/autism_overview_2005.pdf)

<http://en.wikipedia.org/wiki/Autism>

Autism is characterized by **three** distinctive behaviors. Autistic children have difficulties with **social interaction**, display problems with **verbal and nonverbal communication**, and exhibit **repetitive behaviors or narrow, obsessive interests**. These behaviors can range in impact from mild to disabling. Autism varies widely in its severity and symptoms and may go unrecognized, especially in mildly affected children or when more debilitating handicaps mask it.

**1. Social Interactions**-- such as sharing emotions, understanding how others think and feel (sometimes called empathy), and holding a conversation, as well as the amount of time a person spends interacting with others. People with autism have social impairments and often **lack the intuition about others that many people take for granted**. Autistic children are less likely to exhibit social understanding, approach others spontaneously, imitate and respond to emotions, communicate nonverbally, and take turns with others. Children with high-functioning autism suffer from more intense and frequent loneliness compared to non-autistic peers, despite the common belief that children with autism prefer to be alone.

**2. Communication**-- both verbal (spoken) and non-verbal (unspoken, such as pointing, eye contact, or smiling). About a third to a half of individuals with autism do not develop enough natural speech to meet their daily communication needs. Differences in communication may be present from the first year of life, and may include delayed onset of **babbling, unusual gestures, diminished responsiveness, and vocal patterns that are not synchronized with the caregiver**.

**3. Repetitive Behaviour**--often called stereotyped behaviors, such as repeating words or actions, obsessively following routines or schedules, playing with toys or objects in repetitive and sometimes inappropriate ways, or having very specific and inflexible ways of arranging items. Behaviours can be categorized as follows.

- **Stereotypy** is repetitive movement, such as hand flapping, making sounds, head rolling, or body rocking.
- **Compulsive behavior** is intended and appears to follow rules, such as arranging objects in stacks or lines.
- **Sameness** is resistance to change; for example, insisting that the furniture not be moved or refusing to be interrupted.
- **Ritualistic behavior** involves an unvarying pattern of daily activities, such as an unchanging menu or a dressing ritual.
- **Restricted behavior** is limited in focus, interest, or activity, such as preoccupation with a single television program, toy, or game.
- **Self-injury** includes movements that injure or can injure the person, such as eye poking, skin picking, hand biting, and head banging.

Studies also show that a subgroup of children with ASDs experiences a "*regression*," meaning they stop using the language, play, or social skills they had already learned. This regression usually happens between the first and second birthdays.

Generally, a person with an ASD might:

- Not play "pretend" games (pretend to "feed" a doll)
- Avoid eye contact and want to be alone
- Have trouble understanding other people's feelings or talking about their own feelings

- Have delayed speech and language skills
- Repeat words or phrases over and over (echolalia)
- Give unrelated answers to questions
- Get upset by minor changes
- Have obsessive interests
- Flap their hands, rock their body, or spin in circles
- Have unusual reactions to the way things sound, smell, taste, look, or feel

## Causes

[http://www.nichd.nih.gov/publications/pubs/upload/autism\\_overview\\_2005.pdf](http://www.nichd.nih.gov/publications/pubs/upload/autism_overview_2005.pdf)

<http://www.cdc.gov/ncbddd/autism/facts.html>

Scientists don't know exactly what causes autism at this time.

Much evidence supports the idea that **genetic factors—that is, genes, their function, and their interactions—are one of the main underlying causes of ASDs**. But, researchers aren't looking for just one gene. Current evidence suggests that as many as 10 or more genes on different chromosomes may be involved in autism, to different degrees.

Some genes may place a person at greater risk for autism, called **susceptibility**. Other genes may cause specific symptoms or determine how severe those symptoms are. Or, genes with changes or mutations might add to the symptoms of autism because the genes or gene products aren't working properly.

Research has also shown that environmental factors, such as viruses, may also play a role in causing autism. Some harmful drugs taken during pregnancy have been linked with a higher risk of ASDs. There is some evidence that the critical period for developing ASDs occurs before birth. However, concerns about vaccines and infections have led researchers to consider risk factors before and after birth.

We know that the once common belief that **poor parenting practices cause ASDs is not true**. To date, there is no conclusive scientific evidence that any part of a vaccine or any combination of vaccines causes autism, even though researchers have carried out many studies to answer this important question. There is also no proof that any material used to make or preserve vaccines plays a role in causing autism.

# Attention Deficit-Hyperactive Disorder

## Overview

<http://www.ninds.nih.gov/disorders/adhd/adhd.htm>

Attention deficit-hyperactivity disorder (ADHD) is a **neurobehavioral disorder**. It interferes with a person's ability to stay on a task and to exercise age-appropriate inhibition (cognitive alone or both cognitive and behavioral). Some of the warning signs of ADHD include failure to listen to instructions, inability to organize oneself and school work, fidgeting with hands and feet, talking too much, leaving projects, chores and homework unfinished, and having trouble paying attention to and responding to details.

There are several types of ADHD: a predominantly **inattentive subtype**, a predominantly **hyperactive-impulsive subtype**, and a **combined subtype**. ADHD is usually diagnosed in childhood, although the condition can continue into the adult years.

## Clinical Manifestations

<http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder/what-are-the-symptoms-of-adhd-in-children.shtml>

<http://en.wikipedia.org/wiki/Adhd>

**Inattention**, **hyperactivity**, and **impulsivity** are the key behaviors of ADHD. It is normal for all children to be inattentive, hyperactive, or impulsive sometimes, but for children with ADHD, these behaviors are more severe and occur more often. To be diagnosed with the disorder, a child must have symptoms for 6 or more months and to a degree that is greater than other children of the same age.

Children who have symptoms of **inattention** may:

- Be easily distracted, miss details, forget things, and frequently switch from one activity to another
- Have difficulty focusing on one thing
- Become bored with a task after only a few minutes, unless they are doing something enjoyable
- Have difficulty focusing attention on organizing and completing a task or learning something new
- Have trouble completing or turning in homework assignments, often losing things (e.g., pencils, toys, assignments) needed to complete tasks or activities
- Not seem to listen when spoken to
- Daydream, become easily confused, and move slowly
- Have difficulty processing information as quickly and accurately as others
- Struggle to follow instructions.

Children who have symptoms of **hyperactivity** may:

- Fidget and squirm in their seats
- Talk nonstop
- Dash around, touching or playing with anything and everything in sight
- Have trouble sitting still during dinner, school, and story time
- Be constantly in motion
- Have difficulty doing quiet tasks or activities.

Children who have symptoms of **impulsivity** may:

- Be very impatient
- Blurt out inappropriate comments, show their emotions without restraint, and act without regard for consequences
- Have difficulty waiting for things they want or waiting their turns in games
- Often interrupt conversations or others' activities.

## Causes

<http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder/what-causes-adhd.shtml>

<http://www.cdc.gov/ncbddd/adhd/facts.html>

Scientists are not sure what causes ADHD, although many studies suggest that genes play a large role. Like many other illnesses, ADHD **probably results from a combination of factors**. In addition to genetics, researchers are looking at possible environmental factors, and are studying how brain injuries, nutrition, and the social environment might contribute to ADHD.

- **Genes.** Results from several international studies of twins show that ADHD often runs in families. Researchers are looking at several genes that may make people more likely to develop the disorder. Knowing the genes involved may one day help researchers prevent the disorder before symptoms develop. Learning about specific genes could also lead to better treatments.
- **Environmental factors.** Studies suggest a potential link between cigarette smoking and alcohol use during pregnancy and ADHD in children. In addition, preschoolers who are exposed to high levels of lead, which can sometimes be found in plumbing fixtures or paint in old buildings, may have a higher risk of developing ADHD.
- **Brain injuries.** Children who have suffered a brain injury may show some behaviors similar to those of ADHD. However, only a small percentage of children with ADHD have suffered a traumatic brain injury.
- **Food additives.** Recent British research indicates a possible link between consumption of certain food additives like artificial colors or preservatives, and an increase in activity.

Research **does not** support the popularly held views that ADHD is caused by eating too much sugar, watching too much television, parenting, or social and environmental factors such as poverty or family



chaos. Of course, many things, including these, might make symptoms worse, especially in certain people. But the evidence is not strong enough to conclude that they are the main causes of ADHD.

## Additional Information

<http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder/what-is-attention-deficit-hyperactivity-disorder.shtml>

<http://www.ninds.nih.gov/disorders/adhd/adhd.htm>

<http://www.cdc.gov/ncbddd/adhd/facts.html>

<http://en.wikipedia.org/wiki/Adhd>

ADHD has three subtypes:

### Predominantly hyperactive-impulsive

- Most symptoms (six or more) are in the *hyperactivity-impulsivity* categories.
- Fewer than six symptoms of *inattention* are present, although inattention may still be present to some degree.

### Predominantly inattentive

- The majority of symptoms (six or more) are in the *inattention* category and fewer than six symptoms of *hyperactivity-impulsivity* are present, although *hyperactivity-impulsivity* may still be present to some degree.
- Children with this subtype are less likely to act out or have difficulties getting along with other children. They may sit quietly, but they are not paying attention to what they are doing. Therefore, the child may be overlooked, and parents and teachers may not notice that he or she has ADHD.

### Combined hyperactive-impulsive and inattentive

- Six or more symptoms of *inattention* and six or more symptoms of *hyperactivity-impulsivity* are present.
- Most children have the combined type of ADHD.

The usual course of treatment may include medications such as methylphenidate (Ritalin) or dextroamphetamine (Dexedrine), which are stimulants that decrease impulsivity and hyperactivity and increase attention. Most experts agree that treatment for ADHD **should address multiple aspects of the individual's functioning and should not be limited to the use of medications alone**. Treatment should include structured classroom management, parent education (to address discipline and limit-setting), and tutoring and/or behavioral therapy for the child.

# Down Syndrome/Trisomy 21

## Overview

<http://www.nlm.nih.gov/medlineplus/downsyndrome.html>

Down syndrome is a set of mental and physical symptoms that result from having an extra copy of chromosome 21. Even though people with Down syndrome may have some physical and mental features in common, symptoms of Down syndrome can range from mild to severe. Usually, **mental development and physical development are slower** in people with Down syndrome than in those without it.

People with the syndrome may also have other health problems. They may be born with heart disease. They may have dementia. They may have hearing problems and problems with the intestines, eyes, thyroid and skeleton.

The chance of having a baby with Down syndrome increases as a woman gets older. **Down syndrome cannot be cured**. However, many people with Down syndrome live productive lives well into adulthood.

## Clinical Manifestation

<http://www.cdc.gov/ncbddd/birthdefects/DownSyndrome.html>

[http://en.wikipedia.org/wiki/Down\\_syndrome](http://en.wikipedia.org/wiki/Down_syndrome)

Often Down syndrome is associated with some impairment of **cognitive ability and physical growth, and a particular set of facial characteristics**. Individuals with Down syndrome tend to have a lower-than-average cognitive ability, often ranging from mild to moderate disabilities. The average IQ of children with Down syndrome is around 50, compared to normal children with an IQ of 100. Language skills show a difference between understanding speech and expressing speech, and commonly individuals with Down syndrome have a **speech delay**. **Fine motor skills are delayed** and often lag behind gross motor skills and can interfere with cognitive development.

Some common physical signs of Down syndrome include:

- A flat face with an upward slant to the eye, a short neck, small ears, and a large tongue
- microgenia (abnormally small chin)
- Tiny white spots on the iris (colored part) of the eye
- Small hands and feet
- Excessive space between large toe and second toe
- A single crease across the palm of the hand
- Small pinky fingers that sometimes curve toward the thumb
- Poor muscle tone or loose ligaments

- Deep crease in the palm of the hand

Every baby born with Down syndrome is different. In addition to the physical signs, some might have major birth defects or other medical problems. Some physical problems associated with Down syndrome include:

- A birth defect of the heart
- Stomach problems, such as a blocked small intestine
- Celiac disease, a digestive disease that damages the small intestine so that nutrients from food are not absorbed well
- Problems with memory, concentration, and judgment, often called dementia
- Hearing problems
- Eye problems, such as cataracts or trouble seeing objects that are close by (far-sighted)
- Thyroid problems
- Skeletal problems

## Causes

[http://www.nichd.nih.gov/health/topics/Down\\_Syndrome.cfm](http://www.nichd.nih.gov/health/topics/Down_Syndrome.cfm)

<http://www.cdc.gov/ncbddd/birthdefects/DownSyndrome.html>

To understand Down syndrome, it is necessary to understand how a baby develops. Each baby starts developing when he or she receives 23 chromosomes from the mother's egg and 23 chromosomes from the father's sperm. When a baby has Down syndrome, an error happened when either the egg or the sperm was formed. This error caused an **extra chromosome (called chromosome number 21)** in the egg or sperm, so that the baby received a total of 24 instead of 23 chromosomes from one of its parents. Therefore, the baby ends up having 47 chromosomes in every cell of his or her body, instead of 46 chromosomes. This extra chromosome causes the physical signs and additional problems that can occur among people with Down syndrome. **The causes of the errors that produces the extra chromosome is not known.**

The **age of the mother** is the only factor that has been shown to increase the risk of having a baby with Down syndrome. This risk increases with every year, especially after the mother is 35 years of age. However, because younger women are more likely to have babies than older women, 80% of babies with Down syndrome are born to women younger than 35 years of age.

# Body Dysmorphic Disorder

## Overview

[http://en.wikipedia.org/wiki/Body\\_dysmorphic\\_disorder](http://en.wikipedia.org/wiki/Body_dysmorphic_disorder)

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1323298/>

The Diagnostic and Statistical Manual of Mental Disorders defines body dysmorphic disorder as a somatoform disorder marked by a preoccupation with an imagined/real defect in appearance that causes clinically significant distress or impairment in social, occupational or other important areas of functioning. However, BDD may involve an actual defect that is slight or severe, but the sufferer constantly obsesses over it.

This disorder is often seen as a **subcategory of obsessive-compulsive disorder** with more specific criteria. Dissatisfaction with anything related to the human body is possible, ranging from baldness to skin appearance. Focus on the flaw is so preoccupying that people often become depressed and obsessed and may even lose relationships or jobs as a result.

## Clinical Manifestation

[http://en.wikipedia.org/wiki/Body\\_dysmorphic\\_disorder](http://en.wikipedia.org/wiki/Body_dysmorphic_disorder)

<http://emedicine.medscape.com/article/291182-overview>

[http://www.medicinenet.com/body\\_dysmorphic\\_disorder/article.htm](http://www.medicinenet.com/body_dysmorphic_disorder/article.htm)

There are many common symptoms and behaviors associated with BDD. Often these symptoms and behaviors are determined by the nature of the BDD sufferer's perceived defect; for example, use of cosmetics is most common in those with a perceived skin defect. Due to this perception dependency many BDD sufferers will only display a few common symptoms and behaviors.

Data suggest that quality of life and psychosocial functioning is as poor as, or poorer than, in those with obsessive-compulsive disorder (OCD). BDD is associated with high rates of hospitalization (48%), and high rates of suicidal ideation and attempts. New Research indicates that around 76% of people with BDD will experience major depressive disorder at some point in their lives. The most common disorders found in individuals with BDD are avoidant personality disorder, social phobia, social anxiety disorder and dependent personality disorder, which conforms to the introverted, shy and neurotic traits usually found in BDD sufferers.

The general symptoms of BDD include:

- Being preoccupied with minor or imaginary physical flaws, usually of the skin, hair, and nose.
- Having a lot of anxiety and stress about the perceived flaw and spending a lot of time focusing on it.

Other symptoms of BDD commonly found include:

- Obsessive and compulsive thoughts and behaviors related to a perceived appearance defect.
- Major depressive disorder symptoms.
- Delusional thoughts and beliefs related to a perceived appearance defect.
- Social and family withdrawal, social phobia, loneliness and self-imposed social isolation.
- Suicidal ideation.
- Anxiety and possible panic attacks.
- Chronic low self-esteem.
- Dependence on others, such as a partner, friend or family.
- Repetitive behavior
- Perfectionism

## Causes

[http://en.wikipedia.org/wiki/Body\\_dysmorphic\\_disorder](http://en.wikipedia.org/wiki/Body_dysmorphic_disorder)

BDD usually develops in teenagers, a time when individuals are most concerned about the way they look to others. However, many patients suffer for years before seeking help. **There is no single cause of body dysmorphic disorder**; research shows that a number of factors may be involved and that they can occur in combination. BDD can be associated with eating disorders, such as compulsive overeating, anorexia nervosa or bulimia, or it can be more of a phobia, associated instead with social phobia or social anxiety disorder.

Since personality, environmental, and psychological factors among people with BDD vary greatly, it is unlikely that these are the direct cause of BDD, however, they may act as triggers in individuals:

- **Obsessive-compulsive disorder:** BDD can often occur with OCD, where the patient unmanageable practices habitual behaviors that may literally take over his or her life.
- **Teasing or criticism:** While it is unlikely that teasing causes BDD, likewise, extreme levels of childhood abuse, bullying and psychological torture sometimes lead to traumatic stress in vulnerable persons.
- **Parenting style:** Similarly to teasing, parenting style may contribute to BDD onset.
- **Other life experiences:** Many other life experiences may also act as triggers to BDD onset; for example, neglect, physical and/or sexual trauma, insecurity and rejection.
- **Media:** May act as a trigger in those already genetically predisposed or could worsen existing BDD symptoms.
- **Personality traits:** May make someone more susceptible to developing BDD. Personality traits which have been proposed as contributing factors include:
  - Perfectionism, Sensitivity to rejection or criticism
  - Introversion / shyness, avoidant personality, Social phobia
  - Social anxiety disorder , Neuroticism