

# FACTS ABOUT DOWN SYNDROME

## What is Down syndrome?

Down syndrome is the most common of chromosomal anomalies, usually resulting in delays in physical and mental development. Presence of an extra chromosome from either the egg or the sperm gives an infant 47 chromosomes.

## What causes Down syndrome?

Though it is known that the cause of Down syndrome is an error in cell division, it is not known why the error occurs. Most people have forty-six chromosomes in each cell with each chromosome grouped into pairs. To form the egg or the sperm, the cells divide, with twenty three chromosomes to each cell. Then the mother and the father each contribute twenty-three chromosomes to the baby to make the full compliment of forty-six. In the case of Down syndrome, the chromosomes do not divide evenly when forming the egg or the sperm and the two number 21 chromosomes go to one cell and none to the other. The result is that when the egg and the sperm combine, the resulting cell has forty-seven chromosomes instead of forty-six, and there are three number 21 chromosomes.

## MYTHS AND TRUTHS

**Myth:** Down syndrome is a rare genetic disorder.

**Truth:** Down syndrome is the most commonly occurring genetic condition. One in every 800 to 1,000 live births is a child with Down syndrome, representing approximately 5,000 births per year in the United States alone. Today, Down syndrome affects more than 250,000 people in the United States.

**Myth:** Most children with Down syndrome are born to older parents.

**Truth:** Eighty percent of children born with Down syndrome are born to women younger than 35 years old. However, the incidence of births of children with Down syndrome increases with the age of the mother.

**Myth:** People with Down syndrome are severely retarded.

**Truth:** Most people with Down syndrome have IQs that fall in the mild to moderate range of retardation. Children with Down syndrome are definitely educable, and educators and researchers are still discovering the full educational potential of people with Down syndrome.

**Myth:** Most people with Down syndrome are institutionalized.

**Truth:** Today people with Down syndrome live at home with their families and are active participants in the educational, vocational, social and recreational activities of the community. They are integrated into the regular educational system, and take part in sports, camping, music, art programs, and all the other activities of their communities. In addition, they are socializing with people with and without disabilities, and as adults are obtaining employment and living in groups homes and other independent housing arrangements.

**Myth:** Parents will not find community support in bringing up their child with Down syndrome.

**Truth:** In almost every community of the United States there are parent support groups and other community organizations directly involved in providing services to families of individuals with Down syndrome.

**Myth:** Children with Down syndrome must be placed in segregated special education programs.

**Truth:** Children with Down syndrome have been included in regular classrooms in schools across the country. In some instances they are integrated into specific courses, while in other situations students are fully included in the regular classroom for all subjects. The degree of mainstreaming is based on the abilities of the individual; but the trend is for full inclusion in the social and educational life of the community.

**Myth:** Adults with Down syndrome are unemployable.

**Truth:** Businesses are seeking young adults with Down syndrome for a variety of positions. They are being employed in small and medium sized offices; by banks, corporations, nursing homes, hotels and restaurants. They work in the music and entertainment industry, in clerical positions, and in the computer industry. People with Down syndrome bring to their job enthusiasm, reliability and dedication.

**Myth:** People with Down syndrome are always happy.

**Truth:** People with Down syndrome have feelings just like everyone else in the population. They respond to positive expressions of friendship, and they are hurt and upset by inconsiderate behavior.

**Myth:** Adults with Down syndrome are unable to form close interpersonal relationships leading to marriage.

**Truth:** People with Down syndrome date, socialize and form ongoing relationships. Some are beginning to marry. Women with Down syndrome can and do have children, but there is a 50 percent chance that their child will have Down syndrome. Men with Down syndrome are believed to be sterile, with only one documented instance of a male with Down syndrome who has fathered a child.

**Myth:** Down syndrome can never be cured.

**Truth:** Research on Down syndrome is making great strides in identifying the genes on chromosome 21 that cause the characteristics of Down syndrome. Scientists now feel strongly that it will be possible to improve, correct, or prevent many of the problems associated with Down syndrome in the future.

**Source: National Down Syndrome Society, 666 Broadway, New York, NY 10012, 800-221-4602**