

Mosaic Down Syndrome

Get the Facts

What is Down Syndrome?

- There are four types of Down syndrome: Trisomy 21 Down syndrome (Ds), Translocation Down syndrome (TDS), Mosaic Down syndrome (MDS), and Mosaic Translocation Down syndrome (MTDS).
- Trisomy 21 happens when a person has three rather than two copies of the 21st chromosome. This is the most common form of Down syndrome.
- Translocation Down syndrome occurs when a piece of chromosome 21 becomes attached to another chromosome, often number 14, during cell division. Translocation can be inherited by parents, but this is not always the case.
- Mosaic Down syndrome happens when a person has a percentage of Trisomy 21 Down syndrome cells and the remainder of cells are normal
- Mosaic Translocation Down syndrome occurs when a person has a percentage of Translocation Down syndrome cells and the remainder of cells are normal.

What did I do to cause my child to have MDS?

- Nothing at all! Mosaic Down syndrome happens during cell division during or right after conception. You did nothing to cause this to happen.

My child does not have all the Ds features, does this mean he/she will be higher functioning?

- The old saying, “You can’t judge a book by its cover” rings true here. You can not determine your child’s abilities by the Down syndrome characteristics they present.
- Depending on where the Ds cells are located in the body and how many cells there are will determine how your child is affected.
- The majority of people with MDS develop at a faster rate than those with Ds. Some do not experience any developmental delays while others have extreme delays in one or more areas.

Will my child need special help?

- The majority of children with MDS require Early Childhood Intervention. Your child may have developmental delays with speech, fine and gross motor skills. With the help of Speech, Occupational, and Physical Therapists, your child's delays can be helped and often he/she will overcome these delays
- Some children require special education once they reach school age. Most children are "mainstreamed" in regular education classrooms leaving for extra support in academic areas. But, some children with MDS require no special education at all!

What health concerns does a child with MDS have?

- Because children with MDS have a percentage of Ds cells in their body, they can have the same health concerns of a person with Ds.
- It is important to talk with your doctor about having scheduled Down syndrome health check-ups as described by the [DSMIG](#)

What does the future hold for my child?

- No one can tell you what your child will grow up to be! People with Mosaic Down syndrome can grow up to be very productive citizens! They have jobs, and families, fun and friends. They have the same feelings as anyone and the same ambitions of their peers.

How should I treat my child with mosaic Down syndrome?

- Expect the very best from your child and your child will give you their very best! Give them the love and attention that every child needs and enjoy them for who they are. Mosaic Down syndrome is not WHO your child is - it is WHAT your child has.

In this article MDS pertains to both forms of mosaic Down syndrome. (MDS & MTDS)

What you can do for your child with MDS

Early Intervention

If your child is delayed in any area of development, you will need to provide him/her with the proper therapies so he/she can gain the skills needed.

Early intervention is the key to your child's success! As soon as your child is diagnosed with MDS, he/she should be assessed to find what developmental delays exist, if any.

Early Childhood Intervention (ECI) or (EI) is provided free of charge to any child 0-3 yrs of age who needs this intervention. ECI providers will assess your child and determine what areas he or she may be delayed in. ECI has qualified Speech, Occupational, and Physical therapists on hand to make sure that your child gets the best start in life. You can find an ECI program nearest you by checking in your local listings or asking your health care provider.

Another option that parents take is to hire private therapists for their children. Some insurance companies cover the therapy to some degree. Contact your insurance company to find out if it covers these therapies. And, ask your health care provider for referrals of therapists in your area.

Language Development

Children with MDS may experience language delays. A speech therapist (ST) will provide you and your child with the skills needed to learn proper speech. Often times, sign language is used to enhance speech in a young child with a speech delay. This gives the child the extra reinforcement to learn language skills. Often, when the child has mastered language development, he/she will stop using the sign language and use only words to communicate. Listening to your child and having conversations about the day's activities are vital to your child's language development.

Fine Motor Skills

Children with MDS may experience delays in fine motor skills. Fine motor skills involve the use of small muscles for activities such as following an object with eyes, stacking blocks, coloring, and working puzzles. An occupational therapist (OT) will provide you and your child with the skills needed to learn how to develop the fine motor skills.

Gross Motor Skills

Children with MDS may experience delays in gross motor skills. Gross motor skills involve the use of large muscles for activities such as sitting, walking, jumping, and climbing. A physical therapist (PT) will provide you and your child with the skills needed to learn how to develop the gross motor skills.

Communicating with your physician

There are many health concerns for people with MDS. Some people with MDS have no unusual health concerns, but others may experience a wide range of health problems linked to Down syndrome. It is important that you speak with your physician on the health concerns that people with MDS may experience.

Communicating with your educators

Children with MDS have a wide range of physical and mental abilities. When your child enters school, he/she may or may not require special education services. If your child does require any extra help, the school will provide these professionals for him/her. Communication is the key to your child's success in his/her education. The school will often conduct annual meetings to assess your child's progress and delays to further help his/her education. It is important to keep communication open with your child's teachers and school staff.

Through early intervention, needed therapies, medical check-ups, and open communication with your child's educators, you are sure to succeed in raising your child with mosaic Down syndrome!