Amniotic Band Syndrome

What is Amniotic Band Syndrome (ABS)?

Amniotic band syndrome (also known as congenital constriction band syndrome) occurs when a fetus becomes entangled in fibrous, string-like strands, called amniotic bands, while in the womb. Because the fetus continues to grow and the bands do not, they restrict blood flow and disrupt the fetus’s normal growth and development.

In some cases, the strands might be wrapped so tightly that they cause severe deformities to the face, arms, fingers, legs and toes. The most severe cases of ABS can be fatal.

What Causes Amniotic Band Syndrome?

ABS causes are unknown. A commonly accepted theory is that the fetus is exposed to bands of tissue when the inner membrane (also known as amnion)—which surrounds and protects the fetus—ruptures and the outer membrane (also known as chorion) does not. Bands from the ruptured amnion move freely within the uterus, entangling the fetus in fibrous tissues.

Amniotic band constriction is not an inherited condition. It is rare and no two cases of amniotic band syndrome are exactly alike.

Amniotic Band Syndrome Symptoms and Effects

The symptoms and effects of ABS vary depending on where the bands restrict blood flow and how early the bands become entangled around your fetus during development.

Symptoms of amniotic band syndrome might include:

- **Cleft lip or palate**, if a band wraps around your infant’s face.
- A missing limb or part of a limb (also known as congenital amputation).
- Physical defects of the stomach or chest.
• A permanent mark or indentation on your infant’s finger, arm, leg or toe.

**Amniotic Band Syndrome Treatment and Diagnosis**

ABS can be diagnosed during a prenatal ultrasound because the abnormalities it causes are sometimes visible in the womb. If amniotic bands develop later in pregnancy, the condition might not be diagnosed until birth. Most cases of amniotic band syndrome are diagnosed after performing a physical examination once your infant is born.

If your child has amniotic band syndrome, here’s what you can expect during treatment at Gillette Children’s Specialty Healthcare:

• During a prenatal consultation orthopedic specialists share information about current treatment options, provide appropriate counseling and help plan a course of treatment.

• Your child might need **surgery** to release the constricting bands—the type of surgery depends on the location of the bands, number of bands and how deeply they constrict your infant’s tissues. Surgery might happen immediately after birth, or it might not happen until your child is older.

• If amniotic band syndrome affects your child’s face—such as with **cleft lip**—specialists in **craniofacial and plastic surgery** might need to perform **reconstructive surgery** to repair the cleft.

• **Physical therapy** or **occupational therapy** can help your infant increase strength and improve function.

• If your child loses an entire limb because of amniotic band syndrome, they might need a **prosthesis**. Most children can begin using one at 12 to 18 months, or around the time your child begins to stand and walk.

• Sometimes amniotic band syndrome causes mild abnormalities that don’t require treatment.

**Integrated Care**

At Gillette, your family can feel at home with facilities and technology designed specifically to help your child achieve the highest possible levels of independence, comfort and happiness.

An integrated team will help you navigate the services you need and often, your family will see a team of specialists during a single visit to one location. For amniotic band syndrome treatment, your family might work with experts in:

• **Assistive technology**.

• Casting.

• **Child life**.

• **Craniofacial and plastic surgery**.

• **Dentistry and orthodontics**.

• **Occupational therapy**.

• **Orthopedics**.
• **Physical therapy.**

• **Rehabilitation medicine.**

• **Rehabilitation therapies.**

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