What Causes Hip Dysplasia?

Hip dysplasia happens when the hip joint doesn't develop correctly. While the exact cause of hip dysplasia isn't known, we do know that it usually develops around the time of birth. At birth, the hip socket is shallower than it will ever be again, and this natural shallowness helps make the baby's hip joints flexible for passing through the birth canal. Normally, the hip socket deepens rapidly during the first year of life. However, sometimes the socket doesn't deepen enough, which can lead to acetabular dysplasia, the form of hip dysplasia often diagnosed during adolescence or early adulthood.

Why Does Hip Dysplasia Happen?

While it's not completely understood, there are some known factors that can increase the likelihood of hip dysplasia:

1. Family History

Hip dysplasia is more common in families where others have had the condition. Although genetics alone don't directly cause hip dysplasia, a family history can make it more likely.

- **If one child in the family has developmental dysplasia of the hip (DDH), the chances of another child having it are 1 in 17 (about 6%).**
- **If a parent has DDH, the chances of their child having it are 1 in 8 (about 12%).**
- **If both a parent and a sibling have DDH, the chances increase to 1 in 3 (about 36%).**

2. Baby's Position in the Womb

The position of a baby inside the womb can add extra pressure on the hip joints. This pressure can stretch the ligaments and make the hip socket shallower.

- **Left hip: The left hip tends to be affected more because of the baby's position in the womb.**
- **Breech position: Babies born in the breech position (bottom first) are more likely to have hip instability or hip dysplasia than those in the normal position (head first).**

3. Other Conditions

Babies born with certain conditions like fixed foot deformity (clubfoot) or stiffness in the neck (torticollis) are also at a slightly higher risk of hip dysplasia. This might be because there's less space in the womb, putting additional stress on the hips.

Hormones and Ligament Laxity

Around the time of birth, the mother's body produces hormones that help her ligaments stretch to make childbirth easier. Some babies may be more sensitive to these hormones, causing their ligaments to become extra loose (a condition known as ligament laxity). Girls tend to be more affected by ligament laxity than boys, which is why hip dysplasia is about 4-5 times more common in girls.

Why Are Babies' Hips More Likely to Become Misaligned?

Babies' hip joints are softer and more flexible than those of adults, which makes it easier for their hips to become misaligned (subluxated) or even dislocated. This is because:

- **Infant hips: The hip socket in babies is made mostly of soft cartilage, which is pliable and helps the hips move easily. This flexibility can also make the hips less stable.**
- **Adult hips: As we grow, the cartilage is replaced by hard bone, which makes the hip socket more stable.**

Positioning During the First Year of Life

The way babies are held and positioned during their first year can affect the development of their hips. Some cultures that keep infants' hips extended and tightly bound (such as on a cradleboard or papoose board) have higher rates of hip dysplasia.

- **Swaddling: Swaddling babies with their hips straightened during the first few months after birth can increase the risk of hip dysplasia. Instead, it's important to use a hip-safe method that allows the hips to stay bent and apart.**

In contrast, cultures that naturally carry infants with their legs apart, such as in slings or wraps, tend to have much lower rates of hip dysplasia. This is because the hips are allowed to stay in a healthier position for development.

Conclusion

Hip dysplasia is a complex condition with many possible contributing factors. While genetics, baby's position in the womb, and early positioning play a role, the exact cause isn't fully understood. However, awareness of these factors can help reduce the risk of hip dysplasia, especially by using hip-safe practices during infancy.

If you have questions about hip dysplasia or want to learn more about how to reduce your risk, contact us at *HipPreservation.org*. We're here to help!