

# Hypermobility (Juvenile)

## Fast Facts

- Children are considered hypermobile if their joints move beyond the normal range of motion.
- Children with hypermobility have been called “loose-jointed” or “double-jointed.”
- Hypermobility may be associated with muscle and joint pain that is especially worse with activity and at night.
- Joint protection techniques, improving muscle tone and muscle strength help reduce pain and repeated injuries to children with hypermobility.



Joints that are more flexible than normal or that move in excess of a normal range of motion are considered hypermobile. When generalized, hypermobility occurs with symptoms such as muscle or joint pain without systemic disease, it is called - hypermobility syndrome or joint hypermobility syndrome. Rarely, children may have a more widespread connective tissue disorder associated with their hypermobility such as Marfan or Ehlers-Danlos syndrome.

The presence of hypermobility varies widely across different ages, ethnicities and populations. Typically girls tend to be more hypermobile compared to boys.

## **+** What causes hypermobility?

Hypermobility tends to run in families, but its exact cause is unknown. Genes that are involved in the production of collagen, a protein important for joint, tendon and ligament function, are believed to play a role. Syndromes associated with hypermobility -such as Marfan or Ehlers-Danlos - usually are inherited disorders that are passed on to children by their parents. Often, children with Down syndrome will be hypermobile.

## **+** What are the signs and symptoms?

While some children may have no symptoms, others may have joint and muscle pains or mild swelling in the late afternoon or evening or after exercise. These aches and pains are more common in the knees, elbows, and calf and thigh muscles. Symptoms usually improve with rest.

Hypermobile children are more prone to sprains, soft tissue injuries and dislocations of affected joints. They are also more likely to have impaired joint position sense, back pain and flat feet. Some children may have chronic pain. Others may have loose skin, increased bruising, thin scars and nerve compression disorders.

Growing pains may be seen more often in hypermobile children. These are cramping or deep, aching pains of the legs, thighs or calf muscles. They typically occur at night and usually are relieved by massage. The involved joints do not tend to have any signs of inflammation like redness or warmth.

Most children become less flexible as they grow older, and their symptoms improve. Rarely, however, symptoms may persist, and a few people are prone to recurrent injuries or dislocations.

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## **+** How is hypermobility diagnosed?

A diagnosis of hypermobility is made when a physical exam shows excess range of motion of certain joints. Your doctor will check for other features that suggest your child may have a more widespread syndrome associated with hypermobility. If this is so, you may need to see a geneticist. Occasionally your doctor may order lab tests to ensure that your child does not have another genetic or rheumatic disease.

### **Signs of hypermobility**

1. Can you touch the floor with the palms of your hands flat while the knees are straight?
2. Can your elbows go beyond straight?
3. Can your knees move beyond straight?
4. Can you move your thumb to touch your forearm as shown?
5. Can your little fingers be moved so they are perpendicular to the upper arm as shown?

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## **+** What is the treatment for hypermobility?

Treatment for hypermobility is individualized, depending on the severity of symptoms and impact on your child's daily activities. If mild with few symptoms, your child may not need any treatment. Some factors that help with symptoms are:

### **Exercise**

- Maintaining a good posture while standing and sitting is important.
- Joint protection techniques like standing with knees slightly bent, avoiding extremes of range of motion and wearing good shoes with arch supports.
- Your doctor may suggest a physical therapist and a daily exercise regimen. Muscle strengthening exercises may help stabilize the joints and prevent injuries and overuse.
- The use of balancing techniques may help with joint symptoms.
- Orthotics may help correct flat feet.

## Medication

It is important to recognize that the involved joints are not inflamed. For symptomatic relief of pain your doctor may advise the use of over-the-counter medications like acetaminophen (*Tylenol*®), ibuprofen (*Advil*®) or naproxen (*Aleve*®). These can be taken for occasional pain relief as needed before or after exercises. Since children with hypermobility often have pain at night, your doctor may suggest taking medication with a snack in the evening.

## Other Treatments

Sometimes the pain is overwhelming, and some centers offer pain management services to help with the discomfort and chronic pain. The pain may also indicate pain amplification syndrome or fibromyalgia. Ask your doctor for more information about treatments and medical conditions associated with pain.

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## Living with hypermobility

Maintaining an active lifestyle with regular exercises that help support and stabilize the joints is desirable. You and your child can decide how much pain is tolerable and how to modify your lifestyle accordingly. A balanced diet and maintenance of optimal weight is also recommended.

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*Updated March 2017 by Susan Shenoj, MD and reviewed by the American College of Rheumatology Committee on Communications and Marketing.*

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