

# **COMMON FEATURES OF WILLIAMS SYNDROME**

### CHARACTERISTIC FACIAL APPEARANCE

Individuals with Williams syndrome are described as having similar facial features. These features include a small upturned nose, long philtrum (upper lip length), wide mouth, full lips, small chin, and puffiness around the eyes. Blue and green-eyed individuals with Williams syndrome can have a prominent "starburst" or white lacy pattern on their iris. Facial features become more apparent with age.

#### **HEART AND BLOOD VESSEL PROBLEMS**

The majority of individuals with Williams syndrome have some type of heart or blood vessel problem. Typically, there is narrowing in the aorta producing supravalvular aortic stenosis (SVAS), or narrowing in the pulmonary arteries. There is a broad range in the degree of narrowing, ranging from trivial to severe (requiring surgical correction). Since there is an increased risk for development of blood vessel narrowing or high blood pressure over time, regular monitoring by a cardiologist is necessary, especially in the early years.

# HYPERCALCEMIA (ELEVATED BLOOD CALCIUM LEVELS)

Some young children with Williams syndrome have elevations in their blood calcium level. The true frequency and cause of this problem is unknown. When hypercalcemia is present, it can cause extreme irritability or "colic-like" symptoms. Occasionally, dietary or medical treatment is needed. In most cases, the problem resolves on its own during childhood, but lifelong abnormality in calcium or Vitamin D metabolism may exist and should be monitored.

## **LOW BIRTH-WEIGHT / SLOW WEIGHT GAIN**

Most children with Williams syndrome have a slightly lower birth-weight than their brothers or sisters. Slow weight gain, especially during the first several years of life, is also a common problem and many children are diagnosed as "failure to thrive". Small stature for aAdults is typical, with females averaging 4'10" to 5'2" and males averaging 5'3" to 5'6". Adult weight is harder to predict and can vary widely.

## FEEDING DIFFICULTY (GENERALLY LIMITED TO THE EARLY YEARS)

Many infants and young children have feeding problems. These problems have been linked to low muscle tone, severe gag reflex, poor suck/swallow, tactile defensiveness etc. Feeding difficulties tend to resolve as the children get older, but very picky eating habits are easily developed.

## IRRITABILITY (COLIC DURING INFANCY)

Many infants with Williams syndrome have an extended period of colic or irritability. Extreme irritability may be caused by hypercalcemia in some children with WS But more often occurs without explanation. irritability typically lasts from 4 to 10 months of age, then resolves. Abnormal sleep patterns with delayed acquisition of sleeping through the night may be associated with the colic, are can also be present without colic.

#### **DENTAL ABNORMALITIES**

Slightly small, widely spaced teeth are common in children with Williams syndrome. Additional abnormalities of occlusion (bite), tooth shape or appearance may also be present. Most of these dental changes are readily amenable to orthodontic correction.

#### **HERNIAS**

Inguinal (groin) and umbilical hernias are more common in Williams syndrome than in the general population.

# **GASTROINTESTINAL ISSUES**

GERD, reflux and constipation are common in young children with Williams syndrome and may persist into adulthood. Diverticulosis and diverticulitis (including colon rupture) can occur in young adults (before age 30).

## **HYPERACUSIS (SENSITIVE HEARING)**

Children with Williams syndrome often have more sensitive hearing than other children; certain frequencies or noise levels can be painful and/or startling to the individual. This condition often improves with age.

#### **MUSCULOSKELETAL PROBLEMS**

Young children with Williams syndrome often have low muscle tone and joint laxity. As the children get older, joint stiffness (contractures) may develop. Physical therapy is very helpful in improving muscle tone, strength and joint range of motion. Awkward gates, lordosis, scoliosis and kyphosis can occur.

## **OVERLY FRIENDLY (EXCESSIVELY SOCIAL) PERSONALITY**

Individuals with Williams syndrome have a very endearing personality. They have a unique strength in their expressive language skills, and are extremely polite. They are typically unafraid of strangers and show a greater interest in contact with adults than with their peers.

## DEVELOPMENTAL DELAY, LEARNING CHALLENGES AND ATTENTION DEFICIT DISORDER

Most people with Williams syndrome will have mild to severe learning differences and cognitive challenges. Young children with Williams syndrome often experience developmental delays. Milestones such as walking, talking and toilet training are often achieved somewhat later than is considered normal. Distractibility is a common problem in mid-childhood, which can improve as the children get older.

Older children and adults with Williams syndrome often demonstrate intellectual "strengths and weaknesses." There are some intellectual areas (such as speech, long term memory, and social skills) in which performance is quite strong, while other intellectual areas (such as fine motor and spatial relations) show significant weakness.