



# Prader-Willi Syndrome



Dr. Majid Ghayour Mobarhan

Nutritionist from the UK

Insufficient production of hormones such as infertility and osteoporosis

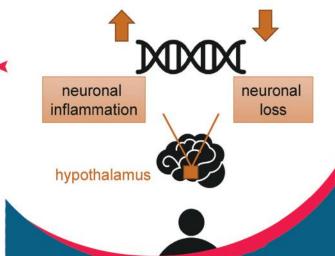
# Nutrition and diet in Prader-Willi syndrome◀

Nutrition and diet are essential in the life of people with Prader-Willi syndrome. Ensuring a sufficient amount of fat in the diet is essential for brain development. Simultaneously, preventing excessive weight gain is also an essential point in nutrition and diet in patients with Prader-Willi syndrome.

International guidelines recommend that a regular diet contain 45-65% of carbohydrates, but a critical nutrition recommendation and diet in Prader-Willi syndrome reduce carbohydrates. In general, approximately 30% of protein, 40% of complex carbohydrates, and 30% of healthy fats are recommended in nutrition and diet in Prader-Willi syndrome. Also, eat quality non-starchy vegetables and protein and cut down on all processed foods. Drinks should be water or milk for children. Sweetened beverages and artificially sweetened diet drinks should be avoided.

# ▶From childhood to preschool <

Nutritional problems improve in children around six months of age. Insatiable appetite is seen at 12 months. When children have an insatiable appetite, food intake should be controlled. Usually, even with low-calorie diets, weight gain occurs very quickly. Calorie diets (> 800 kcal per day) should be adjusted to maintain a healthy weight.



Give the child extra vitamins and calcium, and use standardized growth charts specific to Prader-Willi syndrome to monitor growth, including weight and height.

#### ➤ School time <

In addition to weight control, behavioral and social challenges also occur when children enter school. Uncontrolled eating leads to obesity which a healthy diet can control.

- ➤ Prepare the lunches from home (lunch bag or lunch box) because school meals are high in calories.
- ► Limit calorie intake to 800-1000 kcal per day.
- ➤ Take vitamin D and calcium supplements to prevent vitamin deficiency and osteoporosis.

### ➤ Adulthood ◀

During this period and following the mentioned diet, a person should have an exercise program of at least 30 minutes a day and take calcium and vitamin supplements.



The cause of Prader-Willi syndrome is a genetic disorder that leads to several physicals, mental and behavioral problems.

One of Prader-Willi syndrome symptoms is a feeling of constant hunger, which usually begins around the age of two.

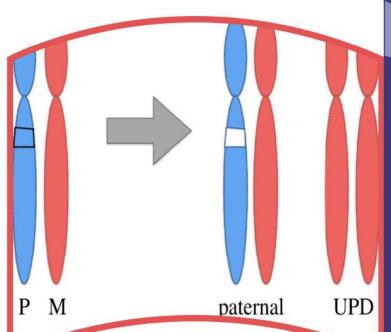
The symptoms vary from person to person. Symptoms of Prader-Willi syndrome in infants

Muscle weakness is one of the most apparent symptoms of Prader-Willi syndrome in infants.

Special features of the face such as almond-shaped eyes, narrowing of the head at the temples, rotating mouth, and thin upper lip are symptoms of Prader-Willi syndrome. Symptoms of Prader-Willi syndrome from early childhood to adulthood:



- ► Intense craving for food and weight gain
  - ► Undeveloped genitals
  - ▶ Poor growth and physical growth
    - Cognitive deficits
- ▶ Delayed sitting or walking of the child
- ➤ Speech problems Speech is often delayed



➤ Behavioral problems

► Sleep disorders



Narrow temple distance and nasal bridge

Almond-shaped eyes

Thin upper lip Downturned mouth

Overweigh

## Cause of Prader-Willi syndrome

The cause of Prader-Willi syndrome is a genetic disorder. In other words, a disease is caused by an error in one or more genes.

Complications of Prader-Willi syndrome
The complications of Prader-Willi syndrome are various. The most important of these complications are the following:

- ➤ Type 2 diabetes
- ➤ High blood pressure, high cholesterol, and heart disease
  - Temporary cessation of breathing, especially during sleep
  - Increased risk of liver disease and gallstones

