

## Reye Syndrome in Children

### What is Reye syndrome in children?

Reye syndrome is a rare but very serious illness that causes brain swelling and liver damage. It can also affect all of the body's organs. As the swelling in the brain increases, the pressure inside of the head may also increase. The increased pressure in the head causes nervous system changes in the child.

The condition is most common in children and teens who are recovering from a viral infection. Reye syndrome usually affects children between ages 4 and 12, but it can occur at any age.

Symptoms occur very suddenly. If Reye syndrome is diagnosed and treated early, many children recover fully. But if not treated quickly, Reye syndrome can cause a child to go into a coma, lead to brain damage, or cause death.

### What causes Reye syndrome in a child?

The exact cause of Reye syndrome is not known. But studies have shown a link between Reye syndrome and children who take aspirin during or shortly after a viral illness. The American Academy of Pediatrics warns about aspirin and Reye syndrome. Don't give aspirin or any medicine that contains aspirin to a child younger than age 19, unless your child's healthcare provider tells you to.

### Which children are at risk for Reye syndrome?

A child is more at risk for Reye syndrome if he or she takes aspirin during or shortly after a viral illness.

### What are the symptoms of Reye syndrome in a child?

A child may have had a viral illness before showing symptoms of Reye syndrome. This may be a respiratory infection, chickenpox, flu, or diarrhea. Symptoms of Reye syndrome occur very quickly. Symptoms may vary, but can include:

- Severe nausea and vomiting
- Sleepiness
- Lethargy
- Confusion
- Anger or violent behavior
- Increased irritability
- No response when trying to wake the child
- Seizures

- Coma

The symptoms of Reye syndrome can be like other health conditions. Make sure your child sees his or her healthcare provider for a diagnosis.

### **How is Reye syndrome diagnosed in a child?**

The healthcare provider will ask about your child's symptoms and health history. He or she will ask about any recent viral illness, and if your child has taken aspirin or medicine that contains aspirin. He or she will give your child a physical exam. Your child may also have tests such as:

- **Blood tests.** These look at liver function and other signs of problems in the body.
- **Urine and stool tests.** Urine and stool may be tested for signs of illness.
- **Liver biopsy.** A small sample of tissue is removed from the liver and studied to help diagnose different illnesses. Certain changes on the liver biopsy can help diagnose Reye syndrome.
- **Electroencephalogram (EEG).** This test records the brain's constant electrical activity, using electrodes placed on the scalp.
- **Spinal tap (lumbar puncture).** The healthcare provider puts a needle into your child's lower back, into the spinal canal. This is the area around the spinal cord. The provider measures the pressure in the spinal canal and brain. He or she takes a small sample of cerebrospinal fluid (CSF). CSF is the fluid that surrounds the brain and spinal cord. The CSF is sent for testing to see if there is an infection.
- **Intracranial pressure monitoring (ICP).** This test measures the pressure inside of the child's skull.
- **MRI.** This test uses a large magnet, radio signals, and a computer to make detailed images of the inside of the body.

### **How is Reye syndrome treated in a child?**

The key is to treat the illness as early as possible. This is a serious illness that can quickly get worse.

A child with Reye syndrome needs to be in the hospital right away. He or she will be put into the intensive care unit (ICU). Here your child will be closely watched by the healthcare team.

The goal of treatment is to monitor and reduce the pressure in the head and to treat symptoms. Medicines are used to control the swelling in the brain, seizures, fever, or other problems. In severe cases, a child may need to be put on a breathing machine (ventilator).

### **What are possible complications of Reye syndrome in a child?**

If not treated quickly, Reye syndrome can cause a child to go into a coma, lead to brain damage, or cause death.

### **How can I help prevent Reye syndrome in my child?**

Don't give aspirin to a child younger than age 19, unless your child's healthcare provider tells you to. Read all medicine labels carefully. Aspirin is also called acetylsalicylic acid. Some medicines may have aspirin included. Ask your child's healthcare provider any questions you have about medicines and

dosage.

### **When should I call my child's healthcare provider?**

If your child shows any symptoms of Reye syndrome during or right after a viral illness, get medical care right away. If your child's healthcare provider is not available, take your child to the emergency room.

### **Key points about Reye syndrome in children**

- Reye syndrome is a rare but very serious illness that causes brain swelling and liver damage. It can also affect all of the body's organs.
- The condition is most common in children and teens who are recovering from a viral infection.
- The exact cause of Reye syndrome is not known. But studies have shown a link between Reye syndrome and children who take aspirin during or after a viral illness.
- Symptoms occur very suddenly. If diagnosed and treated early, many children recover fully. But if not treated quickly, Reye syndrome can cause a child to go into a coma, lead to brain damage, or cause death.
- Read all medicine labels carefully. Aspirin is also called acetylsalicylic acid. Some medicines may have aspirin included. Ask your child's healthcare provider any questions you have about medicines and dosage.

### **Next steps**

Tips to help you get the most from a visit to your child's healthcare provider:

- Know the reason for the visit and what you want to happen.
- Before your visit, write down questions you want answered.
- At the visit, write down the name of a new diagnosis, and any new medicines, treatments, or tests. Also write down any new instructions your provider gives you for your child.
- Know why a new medicine or treatment is prescribed and how it will help your child. Also know what the side effects are.
- Ask if your child's condition can be treated in other ways.
- Know why a test or procedure is recommended and what the results could mean.
- Know what to expect if your child does not take the medicine or have the test or procedure.
- If your child has a follow-up appointment, write down the date, time, and purpose for that visit.
- Know how you can contact your child's provider after office hours. This is important if your child becomes ill and you have questions or need advice.