

MEDICAL MYSTERY: Reye's Syndrome

-a disease that affects the liver and brain-

CAUSE AND CURE: UNKNOWN

What is Reye's Syndrome?

Reye's Syndrome is a disease that affects all organs of the body, but is most lethal to the liver and the brain.

Is Reye's Syndrome a common disease?

The number of recognized cases of Reye's Syndrome has decreased in recent years as a result of greater awareness. There is a need to be informed; no need for panic. Statistical data remains uncertain and the exact incidences of the disease are not known since:

- 1) Reye's Syndrome can be, and is, misdiagnosed.
- 2) It is not, by law, a reportable disease in many states.
- 3) Cases are not always reported to health officials.

What age groups are affected?

No age group is immune; however, the disease usually affects children from infancy to about 19 years of age.

The disease strikes all races. Both sexes are affected equally. In black children less than one year of age, the incidence is higher.

The largest number of reported cases has occurred in the 10-14 year old age group. Increasing numbers of cases have been reported in adolescents. This may be due to the fact that they are unaware of the Reye's aspirin link before taking over-the-counter medicines.

How does a person get Reyes Syndrome?

It is defined as a two-phase illness because it is almost always associated with a previous viral infection, such as influenza or chicken pox. Scientists do know that Reye's Syndrome is not contagious and the cause is unknown. Clusters of cases have occurred in some areas.

Reye's Syndrome is often misdiagnosed as encephalitis, meningitis, diabetes, drug overdose, poisoning, Sudden Infant Death Syndrome or psychiatric illness.

Is Reye's Syndrome seasonal?

It appears with greatest frequency during January, February and March *when influenza is most common*. Cases have been reported in every month of the year.

An epidemic of flu or chicken pox is commonly followed by an increase in the number of cases of Reye's Syndrome.

Why is early diagnosis so important?

A person's life can depend on early diagnosis.

Statistics indicate an excellent chance of recovery when Reye's Syndrome is diagnosed and treated in its earliest stages.

The later the diagnosis and treatment, the more severely reduced are chances for successful recovery and survival.

What does Reye's Syndrome do to the body?

Abnormal accumulations of fat develop in the liver and other organs of the body, along with a severe increase of pressure in the brain. **Unless diagnosed and treated successfully, death is common often within a few days.**

What is the role of aspirin?

Epidemiological research has shown an association between the development of Reye's Syndrome and the use of aspirin (a salicylate) for treating the symptoms of influenza-like illnesses, such as chicken pox and colds. The U.S. Surgeon General, the Food and Drug Administration, and the Centers for Disease Control recommend that aspirin and combination products containing aspirin not be given to children under 19 years of age during episodes of fever-causing illnesses. *Acetylsalicylate is another word for aspirin; some drug labels may use the words acetylsalicylate, acetylsalicylic acid, salicylic acid, or salicylate instead of the word aspirin.* Always ask your doctor or pharmacist before taking any medication.

Is it possible to develop Reye's Syndrome without taking aspirin?

Yes! Reye's Syndrome can develop without taking aspirin. However, the chances of developing Reye's Syndrome can be reduced by not giving aspirin to children and teenagers for relief of discomfort or fever without first consulting a physician for each specific use.

What are the early stages of Reye's Syndrome?

STAGE I:

- Persistent or continuous vomiting
- Signs of brain dysfunction:
 - Listlessness
 - Loss of pep and energy
 - Drowsiness

STAGE II:

- Personality changes:
 - Irritability
 - Aggressive behavior
- Disorientation:
 - Confusion
 - Irrational behavior
- Delirium and convulsions

Reye's Syndrome should be suspected in a person if this pattern of symptoms appear during or, most commonly, after a viral illness such as "flu" or chicken pox. Fever is not usually present. Many diseases have symptoms in common. Physicians and medical staff in emergency rooms who have not had experience in treating Reye's Syndrome may misdiagnose the disease. The symptoms of Reye's Syndrome in infants do not follow a typical pattern. For example, vomiting does not always occur .

Under these circumstances, two liver function tests should be performed immediately:

Liver Function Tests	SGOT (SAT) SGPT (ACT)
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The results of these tests are commonly available within two to three hours.

Abnormal SGOT and SGPT strongly suggest a diagnosis of Reye's Syndrome. Immediate further diagnostic testing will give a definite diagnosis.

How is Reye's Syndrome treated?

Reye's Syndrome is a medical emergency and time is of the utmost importance. The chance of recovery is greatly increased when it is treated in its earliest stages. There is to date no cure for the disease. Successful management depends on early diagnosis. Therapy is primarily directed to protect the brain against irreversible damage by reducing the brain swelling.

People with Reye's Syndrome require the services of an intensive care unit and physicians and nurses experienced in the treatment of the disease. A person with Reye's Syndrome should be transferred to a known treatment center. If this is not possible, immediate phone consultation with a treatment center should be made.

Are there lasting effects?

Recovery is related to the severity of the swelling of the brain. Some people recover completely. Others may sustain brain damage, extending from slight to severe brain dysfunction. Those who progress rapidly through the stages and lapse into a coma have a poorer prognosis than those with less a severe disease. All people surviving Reye's Syndrome should be evaluated using quantitative psychological and neuropsychological test measures.

The National Reye's Syndrome Foundation has affiliates in almost every State. Oiler resources include Crippled Children's Services, State Developmental Disabilities Agencies, child development clinics, local school systems and health departments. Parents should familiarize themselves with Public Law 94-142 , available through public libraries.

What needs to be done to help prevent Reye's Syndrome?

Research is needed to:

- Find the cause of Reye's Syndrome
- Improve treatment methods
- Develop improved means for early detection

The National Reye's Syndrome Foundation was formed in 1974. It is the only citizen group to generate a concerted organized lay movement to eradicate the disease and provide funds for research in the cause, treatment, cure and prevention of Reye's Syndrome.

An audio-visual slide/tape on Reye's Syndrome is available for the general public. Two additional programs for in-service hospital programs are technical in nature and are designed for members of the health profession. A VI-IS documentary is also available for the general public. Inquiries regarding their use should be directed to the Bryan office.

The Foundation needs your help. Funds for our work are also needed and can be sent to your local affiliate or the **National Reye's Syndrome Foundation** (a nonprofit, tax-exempt health agency that has started over 125 volunteer affiliates in forty-two states): **P.O. Box 829, Bryan, Ohio 43506.**

Remember...

- Reye's Syndrome usually appears soon after a flu-like infection or chicken pox.
- Early signs of Reye's Syndrome are continuous vomiting, listlessness, loss of energy, drowsiness, irritability, aggressiveness, confusion and irrational behavior.
- Medicines, at the very least, can mask symptoms. Therefore, if any of the symptoms of Reye's Syndrome develop, do not use aspirin or anti-nausea medicine.
- Phone your physician immediately.
- Abnormal SGOT and SGPT tests strongly suggest a diagnosis of Reye's Syndrome.
- Early diagnosis is vital. Current statistics (1993) of recorded cases show:
 - 90% recovery if diagnosed early
 - 15% recovery if diagnosed late
 - 50% fatalities overall

National Reye's Syndrome Foundation**P.O. Box 829****Bryan, Ohio 43506****(419) 636-2679 or (800) 233-7393**

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