



IT'S YOUR HEALTH



Autism Spectrum Disorders (ASD)

The Issue

Autism Spectrum Disorders (ASD) is a term used to describe a range of complex, lifelong conditions that affect individuals of all ages and from all walks of life. Dedicated researchers are working to find science-based answers about the causes and most effective treatments for ASD, but there is still much that is unknown.

Background

ASD is a term used to describe a group of developmental disorders that includes autism, Aspergers syndrome, Pervasive Developmental Disorders, and, in some cases, Rett's disorder and childhood disintegrative disorder. These disorders are characterised by impairments in social interaction and communication, combined with a restricted set of interests, activities, and behaviours. Onset of ASD occurs in early childhood. According to international and Canadian studies, about one in every 150-160 children has autism. Studies also show that signs of autism are usually present by three years of age, and it is found four times more often in boys than in girls.

Signs of ASD

People affected by ASD may have certain general characteristics in common. For example, they may have trouble communicating with others or difficulty with regular social interactions. Other

signs of ASD may include a tendency towards repetitive behaviours, and unusual, or severely limited interests.

However, ASD develops differently in every individual. There is no such thing as a "typical" autism disorder, because there are wide differences from person to person in the number and kinds of symptoms, as well as the intensity, which can vary from mild to severe.

Cause of ASD

There is strong evidence that genetics plays a role, but no one knows the cause of ASD. Ongoing research is investigating many possibilities, including such factors as:

- genetic influences
- pre- and post-natal development
- environmental factors, and
- immune deficiencies

ASD is not infectious, and cannot be "caught." It is not caused by the behaviour of parents or their parenting style.

Certain Web sites have claimed that there may be a link between autism and an ingredient (thimerosal) found in some vaccines. After looking into this issue, Health Canada has concluded that the best available science to date indicates there is no link between autism and vaccines

containing thimerosal. International bodies, such as the World Health Organization (WHO), the U.S. Food and Drug Administration (U.S. FDA), and the Institute of Medicine in the U.S., share Health Canada's opinion.

Diagnosis and Treatment of ASD

Parents are often the first people to see signs that a child may be affected by Autism Spectrum Disorders. A team of health professionals will use different assessments to make the diagnosis.

These conditions are lifelong and have a significant impact on families. While there is no "cure" for ASD, many children do benefit from a wide range of treatments. More research is needed to better understand the most effective interventions to help people with ASD reach their full potential.

Minimizing Your Risk

While research continues on the causes of autism related disorders and their prevention, early diagnosis and treatment can benefit children. If you see signs of ASD in a family member, talk to your health care provider about which next steps to take.

If a family member is diagnosed with ASD, learning more about the condition will help your understanding of what can be done to help the individual. Be sure to get your information from reliable sources, such as those listed below in the **Need More Info?** section. Also, when someone in the family is diagnosed with ASD, many people feel that they benefit from the support and advice of other families who have been in a similar situation. A number of the autism organizations referred to below have Web sites with sections geared especially to parents and caregivers. You can also talk to your team of medical professionals

about help that may be available through support groups in your community.

The Government of Canada's Role

To address Autism Spectrum Disorders, Health Canada works with the Public Health Agency of Canada and the Canadian Institutes of Health Research to co-ordinate research and surveillance. Health Canada also supports Canada's capacity to address autism through efforts to enhance awareness and knowledge around this condition. Specific federal activities include the following:

- Health Canada is investing \$1 million to support a National Chair for Autism Research and Intervention at Simon Fraser University.
- Between 2001 and 2007, the Canadian Institutes for Health Research has invested \$26.1 million in autism-related research.
- In May 2008, the Public Health Agency of Canada completed a consultation on autism surveillance, which will be incorporated into the Agency's planning process for new work on a \$5 million national surveillance system for developmental disorders, including autism.

Need More Info?

See Health Canada's Autism Web section at:
www.hc-sc.gc.ca/hc-ps/dc-ma/autism-eng.php

This section has links to a variety of reliable sources of information, including a number of provincial and territorial Autism Societies, Autism Society Canada, Autism Speaks Canada, the Canadian Autism Intervention Research Network, and the Centre of Knowledge on Healthy Child Development (Offord Centre for Child Studies).

Also, see the following:

Thimerosal in Vaccines and Autism - Questions and Answers (Public Health Agency of Canada), at:
www.phac-aspc.gc.ca/im/q_a_thimerosal_e.html

It's Your Health - Misconceptions about Vaccine Safety, at:
www.hc-sc.gc.ca/iyh-vsv/med/misconception_e.html

For additional articles on health and safety issues go to the *It's Your Health* Web section, at:
www.healthcanada.gc.ca/iyh

You can also call toll free at 1-866-225-0709 or TTY at 1-800-267-1245*.