"The thought of diagnosing a child with autism can be daunting to physicians. This book - filled with clever illustrations and easy explanations - is a great tool for physicians and other care givers trying to deal with this issue. Thank you to the Help Autism Now Society and Autism Canada for putting together a very helpful resource that can easily be used by anyone involved in the early detection of autism."

DR. WENDY EDWARDS
Pediatrician
Chatham, ON

"I have gone through the Autism Physician Handbook materials and found the information presented to be a truly excellent and a very creative visual resource for physicians, educators and other caregivers working with young children."

DR. SUZANNE LEWIS
Clinical Professor
University of British Columbia

"With the generous help and tireless work of the Help Autism Now Society, Autism Canada has been able to bring this important resource north of the border. This handbook is a MUST for any professional working with children.

LAURIE MAWLAM
Executive Director
Autism Canada

Autism Physician Handbook

CANADIAN EDITION

AUTISM CANADA

HANS Help Autism Now Society

*We would like to thank the **Help Autism Now Society** for all the hard work they have put into this handbook and for so graciously allowing us to modify it to suit the needs of Canadians. It is an excellent resource to have, and the ability to add our distinctly Canadian content will only serve to make it more accessible and to help a far greater number of families.*

Autism Canada Message

The social and economic impact of autism is felt by the vast majority of Canadians. At Autism Canada, we feel there is a real need for Canadians to have a united national voice focusing on the issues that affect individuals living on the spectrum and their families. The autism community is constantly growing and we consider ourselves to be among the leaders of this community.

By collaborating with our ASD Advisory Committee, as well as our Provincial and Territorial Council members, we are making a difference at the grassroots level. We are driven, focused and committed to:

- **Be a national knowledge hub** providing current, timely and useful information and direction to families and persons with ASD.
- **Influence public policy at the national level.** Together with ASD partners across the country, we take a leadership role to influence public policy at the national level.
- **Facilitate collaboration and sharing among member organizations.** We will work with our Provincial and Territorial Council to provide them with current, timely, and useful information and help them build programming, fundraising and awareness capacity.
- **Build greater capacity and competencies in health care and in other critical sectors such as education, justice & senior care.** We are committed to increasing the knowledge, capacity and competencies of some of the primary sectors with which people on the Spectrum interact over the course of their lives, specifically, health care, education, justice and senior care.
- **Support and promote medical and non-medical research.** We champion evidence-based research by bringing together researchers from around the world.

Autism Canada supports an individualized “multi-disciplinary” approach to treating Autism Spectrum Disorders, combining medical, nutritional and behavioural treatments. We encourage parents to partner with informed licensed Health Care Professionals to provide the best care for their child.

Our organization could not possibly continue to provide support were it not for the hundreds of generous donations received each year. Please visit us at www.autismcanada.org to learn how you can help.

Autism Canada
www.autismcanada.org
P.O. Box 366, Bothwell, Ontario N0P 1C0
(519) 695-5858
info@autismcanada.org
Registered Charitable Organization 13160 7657 RR0001

Help Autism Now Society

Table of Contents

Screening for Autism Spectrum Disorders

Research has found Autism Spectrum Disorders (ASDs) can sometimes be detected at 18 months or younger. By age 2, a diagnosis by an experienced professional can be considered very reliable. However, many children do not receive a final diagnosis until they are much older. This delay means children with an ASD might not get the help they need.

The earlier an ASD is diagnosed, the sooner treatment can begin. Screening tools are designed to help identify children who might have developmental delays. Screening tools do not provide conclusive evidence of developmental delays and do not result in diagnoses. A positive screening result should be followed up with a referral to a developmental specialist.

Types of Screening Tools

There are many different developmental screening tools. Autism Canada offers four online tools based on whether the person being screened is a toddler, child, teenager or adult. They may be found online at http://autismcanada.org/about-autism/diagnosis/screening-tools.

Screening tools may be administered by professionals, community service providers and in some cases parents. Examples of screening tools include:

- Ages and Stages Questionnaires (ASQ)
- Communication and Symbolic Behavior Scales (CSBS)
- Parent's Evaluation of Development Status (PEDS)
- Checklist for Autism in Toddlers (CHAT)
- Modified Checklist for Autism in Toddlers (M-CHAT)
- Modified Checklist for Autism in Toddlers, Revised (M-CHAT-R)
- Pervasive Developmental Disorder Screening Test-II (PDDST II)
- Screening Tool for Autism in Toddlers and Young Children (STAT)

This list is not exhaustive, and other tests are available.

The Autism Physician Handbook includes a CHAT poster and features the M-CHAT-R questionnaire.

At 18 months of age

Does your child ...

1. **Look at you and point** when he/she wants to show you something?

2. **Look when you point to something?**

3. **Use imagination to pretend play?**

If the answer is NO, your child may be at risk for AUTISM. Please alert your physician today.

Based on CHAT (CHecklist for Autism in Toddlers)

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M-CHAT-R (Modified Checklist for Autism in Toddlers, Revised)

SECTION A: TO BE COMPLETED BY PARENT

Please answer these questions about your child. Keep in mind how your child usually behaves. If you have seen your child do the behavior a few times, but he or she does not usually do it, then please answer no. Please circle yes or no for every question.

01.	If you point at something across the room, does your child look at it? (**For example**, if you point at a toy or an animal, does your child look at the toy or animal?)	Yes	No
02.	Have you ever wondered if your child might be deaf?	Yes	No
03.	Does your child play pretend or make-believe? (**For example**, pretend to drink from an empty cup, pretend to talk on a phone, or pretend to feed a doll or stuffed animal)	Yes	No
04.	Does your child like climbing on things? (**For example**, furniture, playground equipment, or stairs)	Yes	No
05.	Does your child make unusual finger movements near his or her eyes? (**For example**, does your child wiggle his or her fingers close to his or her eyes?)	Yes	No
06.	Does your child point with one finger to ask for something or to get help? (**For example**, pointing to a snack or toy that is out of reach?)	Yes	No
07.	Does your child point with one finger to show you something interesting? (**For example**, pointing to an airplane in the sky or a big truck in the road)	Yes	No
08.	Is your child interested in other children? (**For example**, does your child watch other children, smile at them, or go to them?)	Yes	No
09.	Does your child show you things by bringing them to you or holding them up for you to see — not to get help, but just to share? (**For example**, showing you a flower, a stuffed animal, or a toy truck)	Yes	No
10.	Does your child respond when you call his or her name? (**For example**, does he or she look up, talk or babble, or stop what he or she is doing when you call his or her name?)	Yes	No
11.	When you smile at your child, does he or she smile back at you?	Yes	No
12.	Does your child get upset by everyday noises? (**For example**, a vacuum cleaner or loud music)	Yes	No
13.	Does your child walk?	Yes	No
14.	Does your child look you in the eye when you are talking to him or her, playing with him or her, or dressing him or her?	Yes	No
15.	Does your child try to copy what you do? (**For example**, wave bye-bye, clap, or make a funny noise when you do)	Yes	No
16.	If you turn your head to look at something, does your child look around to see what you are looking at?	Yes	No
17.	Does your child try to get you to watch him or her? (**For example**, does your child look at you for praise, or say “look” or “watch me”)	Yes	No
18.	Does your child understand when you tell him or her to do something? (**For example**, if you don’t point, can your child understand “put the book on the chair” or “bring me the blanket”?)	Yes	No
19.	If something new happens, does your child look at your face to see how you feel about it? (**For example**, if he or she hears a strange or funny noise, or sees a new toy, will he or she look at your face?)	Yes	No
20.	Does your child like movement activities? (**For example**, being swung or bounced on your knee)	Yes	No

(See next page for scoring recommendations)

AUTISM CANADA

SCORING ALGORITHM

"NO" responses indicating ASD risk:

All except questions 2, 5 and 12

"YES" responses indicating ASD risk:

Only questions 2, 5 and 12

The following algorithm maximizes psychometric properties of the M-CHAT-R:

RISK ASSIGNMENT

HIGH RISK for autism group	Total Score of 8 - 20
MEDIUM RISK for autism group	Total Score of 3 - 7
LOW RISK for autism group	Total Score of 0 - 2

MANAGEMENT RECOMMENDATIONS:

HIGH RISK group: Refer to developmental clinic as well as ESD (Educational Services Department).

MEDIUM RISK group: Administer the Follow-Up (available at www.mchatscreen.com).

If score remains above 2 child falls in High risk group – refer as above.

If score drops below 2 the child is then considered Low risk. Child should be rescreened at future well-child visits.

LOW RISK group: If child is younger than 24 months, screen again after second birthday. No further action required unless surveillance indicates risk for ASD.

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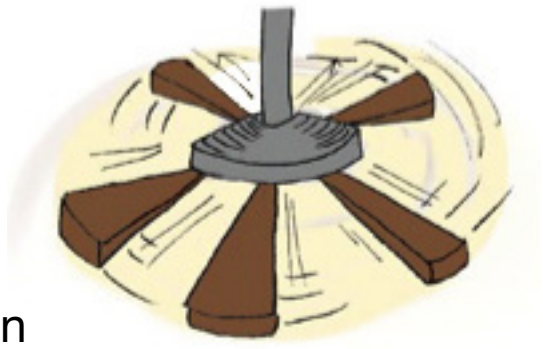
Behavioural Symptoms of Autism

AUTISM CANADA



Social

Communication

Autism-Related/Repetitive Behaviours

Motor

Sensory Overload

Sensory

Self Injurious

Safety

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Behavioural Symptoms of Autism

AUTISM CANADA

SOCIAL ISSUES

May show no interest in other children playing

May be vicious with siblings

May sit alone in crib screaming instead of calling out for mother

May not notice when parent leaves or returns from work

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Behavioural Symptoms of Autism

AUTISM CANADA

SOCIAL ISSUES

May show no interest in Peek-a-Boo or other interactive games

May strongly resist being held, hugged or kissed by parents

May not raise arms to be picked up from crib when someone reaches out to pick him up

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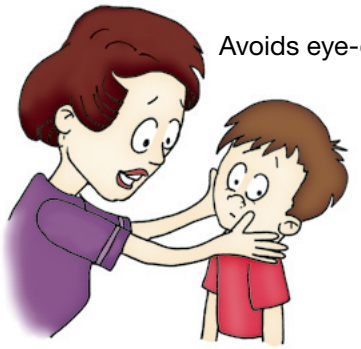
Behavioural Symptoms of Autism

AUTISM CANADA

COMMUNICATION ISSUES

Children with autism often appear to be unaware of their environment and may have difficulty with eye-contact. As a result they may seem uninterested in communication of any kind. When they do need something they often resort to “Hand-Leading”. The child places the parent’s hand on the object he desires, so using the parent or adult as a TOOL to get what they want. Non-autistic children communicate their needs by verbalizing, or non-verbal methods such as pointing.

Seemingly unaware of environment



Avoids eye-contact

Hand-Leading

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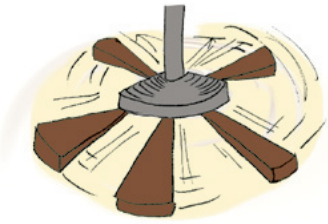
Behavioural Symptoms of Autism

AUTISM CANADA

AUTISM-RELATED/REPETITIVE BEHAVIOURS

Flapping



Staring at ceiling fan

Spinning

Lining up toy cars

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Behavioural Symptoms of Autism

AUTISM CANADA

AUTISM-RELATED/REPETITIVE BEHAVIOURS

May show no interest in toys but get attached to objects like a space-heater

Picking lint
in the sunlight

May focus on only one aspect of a toy, like spinning the wheels of a toy car

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Behavioural Symptoms of Autism

AUTISM CANADA

AUTISM-RELATED/REPETITIVE BEHAVIOURS

Rocking

Obsessively switching light on and off

Eats unusual objects like clothes, mattress or drapes

Flicks fingers in front of eyes

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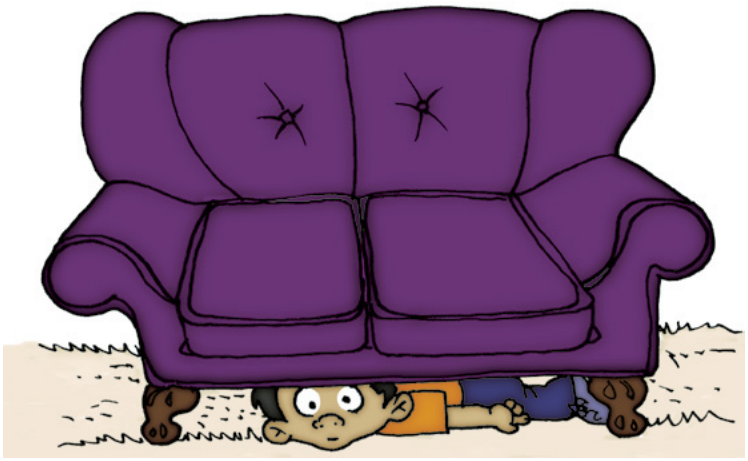
Behavioural Symptoms of Autism

AUTISM CANADA

AUTISM-RELATED/REPETITIVE BEHAVIOURS

Finds ways to get deep-pressure applied to body



Smearing feces

Finds ways to get heavy impacts to body

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Behavioural Symptoms of Autism

AUTISM CANADA

MOTOR ISSUES

Children with autism can exhibit motor abnormalities. Some may have exceptional motor skills in one area yet could be impaired in others.

Fine Motor Deficits

Poor coordination

Toe-walking

Depth Perception Deficit

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Behavioural Symptoms of Autism

AUTISM CANADA

MOTOR ISSUES

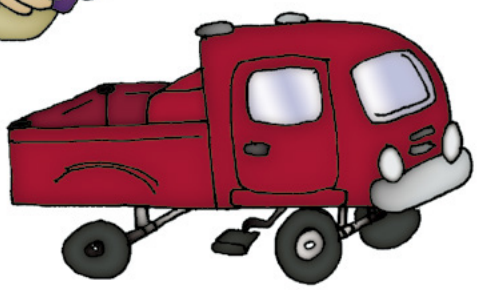
Even children who exhibit typical motor skills, may have difficulty with activities like tricycles, ride-on trucks, etc.

OR

Clumsy

Exceptional Balance

Drooling



Unable to ride tricycles, or trucks

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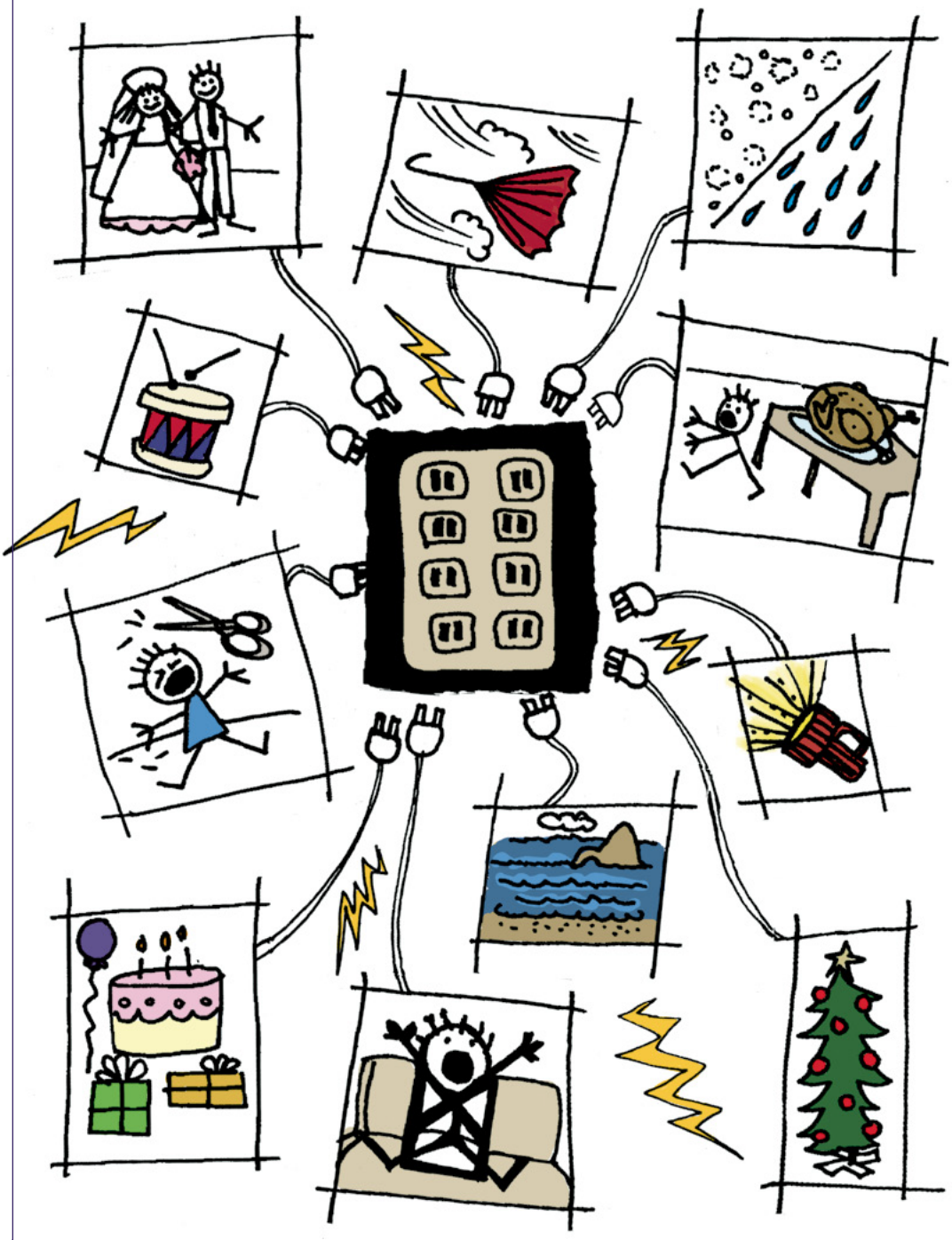
Behavioural Symptoms of Autism

AUTISM CANADA

SENSORY OVERLOAD



A child with autism may have extreme difficulty tolerating music, noise, textures and new experiences or environments. The greater number of sensory exposures, the more likely a behavioural melt-down will occur.

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Behavioural Symptoms of Autism

AUTISM CANADA

SENSORY ISSUES

Extreme difficulty with haircuts

Unable to tolerate seat belts

May not like new experiences such as birthday candles or balloons

May be almost impossible to bathe

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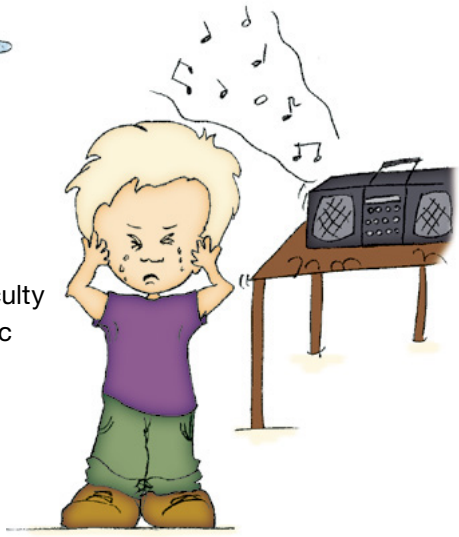
Behavioural Symptoms of Autism

AUTISM CANADA

SENSORY ISSUES

Gags at common household smells

May have difficulty tolerating music



Spinning objects close to face

May appear deaf, not startle at loud noises but at other times hearing seems normal

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Behavioural Symptoms of Autism

AUTISM CANADA

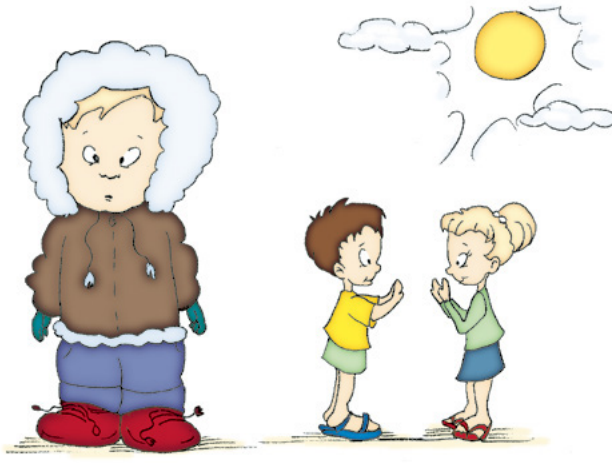
SENSORY ISSUES

May have difficulty
wearing outdoor clothing in winter

Resists
having
clothing changed

May rip at own clothes,
labels and seams

During summer may
insist on wearing
winter clothing



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Behavioural Symptoms of Autism

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SELF INJURIOUS BEHAVIORS

Head-banging

Self-biting with no apparent pain

Ripping and scratching at skin

Pulling out handfuls of hair

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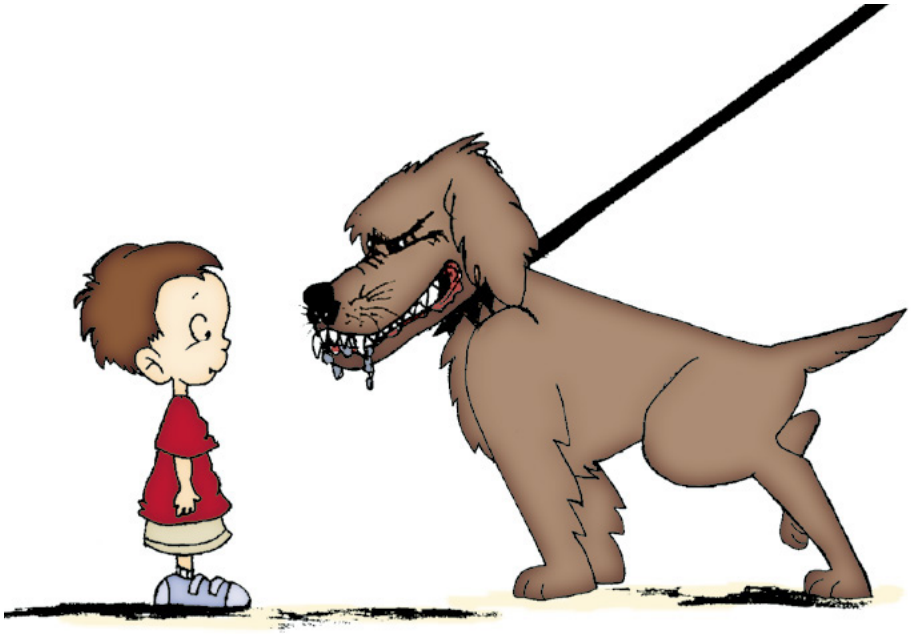
Behavioural Symptoms of Autism

AUTISM CANADA

SAFETY ISSUES



No sense of danger

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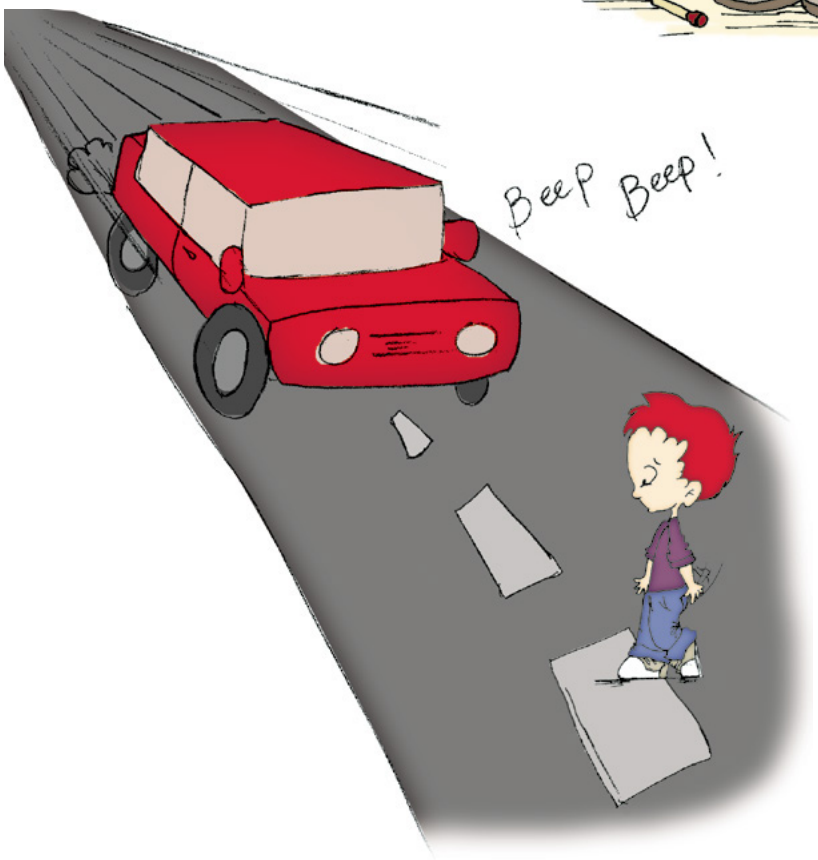
Behavioural Symptoms of Autism

AUTISM CANADA

SAFETY ISSUES

Doesn't recognize situations where he may get hurt



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Behavioural Symptoms of Autism

AUTISM CANADA

SAFETY ISSUES

No fear of heights

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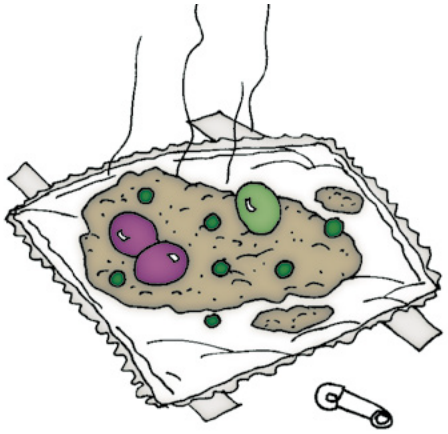
Gastro-Intestinal Disturbances

Dr. Tim Buie, a Gastroenterologist at Harvard University and Mass General Hospital, Boston, has performed endoscopies in over 1000 children with autism. In the initial 400 children, he discovered that GI problems were much more prevalent in children with autism than in normal controls.

- 20% Esophagitis
- 12% Gastritis
- 10% Duodenitis
- 12% Colitis
- 55% Lactase Deficiency

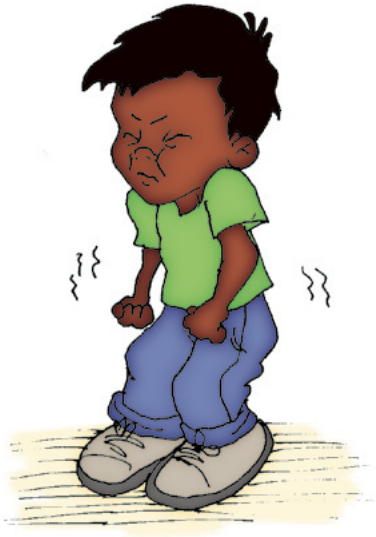
Consider referral to GI where appropriate.

Diarrhea



Undigested food in stool

Severe self-limiting diet and/or food sensitivity



Constipation

Sleep-Disturbances/Pain Responses/Seizures

SLEEP DISTURBANCES

Children may go days without any apparent need to sleep. May not seem to notice difference between day and night. May have difficulty going to sleep and staying asleep. May only sleep brief periods of an hour or two maximum.

Consider the **parent's sleep-deprived** state as a consequence.

ALTERED PAIN RESPONSES

Diminished / Absent Pain Responses

or

Heightened Pain Responses

SEIZURES

Co-morbidity with seizures increasing with age.
Unknown etiology

Impact of Autism on the Family

AUTISM CANADA

WITH A CHILD WITH AUTISM, ROUTINE EVERYDAY ACTIVITIES MAY BE IMPOSSIBLE.

Stress on marriage and siblings can be tremendous. Referral to family/siblings **counseling** and **local support groups** may be appropriate.

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The Role of Early Educational Interventions

AUTISM CANADA

Studies have shown that early intensive educational interventions result in improved outcomes for the child and family. Initial strategies may include teaching the child to notice what is going on in their environment, to be able to pay attention, to imitate behaviour, and later progressing to communication skills, etc.

Refer the family to **E**arly **I**ntervention (**EI**) for evaluation if any developmental delay is suspected.

Depending on the child's needs, **EI** may include Speech, Occupational and/or Physical Therapy.

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Summary of Potential Referrals

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1. Developmental Pediatrician/Child Psychiatrist/Psychologist
2. Pediatric GI Specialist (if child has severe diarrhea / constipation / bloody stools / undigested food / frequent vomiting)
3. Neurologist (if seizures present)
4. Hearing Evaluation
5. Speech Therapy
6. Occupational/Physical Therapy
7. Nutritionist or Dietician
8. Developmental Optometrist (Vision Therapy)
9. Chiropractor or Osteopath
10. Music or Play Therapy
11. Social Worker / Family Counseling

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Optimizing Office Visits for Children with Autism

AUTISM CANADA

As Physicians we are primarily trained to look for sickness. Children with autism **rarely look sick**; they may look perfectly healthy and have attained all their pediatric milestones.

They may behave as though they are just lacking firm parental controls. They are often **very resistant to change**: new situations, new experiences and new people.

HANS Help Autism Now Society

Optimizing Office Visits for Children with Autism

AUTISM CANADA

CONSIDER ADVANCE TELEPHONE-CONFERENCE WITH THE PARENT

Advantages include the ability to:

1. Obtain a clear history from the parent without the distraction of the child present.

2. Ask the parent for their suggestions as to how the visit could be made easier.

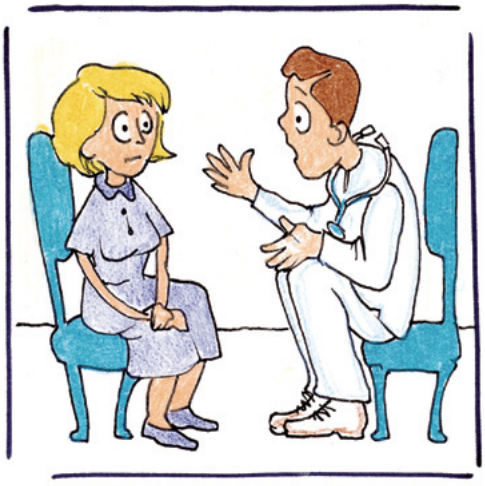
3. Ask the parent to bring a motivator (bribe) for the child to assist with exam.

4. If you anticipate the need for blood draw, consider prescribing anesthetic cream so that the parent can apply it in advance of the visit.

5. Suggest the parent prepare the child by reading the medical social stories, "Going to see the Dr" and/or "Going to have blood drawn" by HANS helpautismnow.com

LISTEN TO THE PARENT

Parents are experts at "reading" their child.



Where possible treat any physical symptoms as you would any other child, (without letting autism cloud your judgment).

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Optimizing Office Visits for Children with Autism

AUTISM CANADA

PREPARE THE EXAM ROOM

Nurse/ Medical Assistant can check in advance with the parent regarding room accommodations. These may include :

- Quiet room
- Room without a window
- No bright lights
- No music

If necessary remove all objects that could potentially be used as missiles or weapons.

MINIMIZE WAITING TIME IF POSSIBLE

Consider:

Waiting rooms can be stressful and overwhelming. Consider scheduling the child as the first appointment of the day, or during non-peak hours.

Potential Advantages:
Minimizes risk of:
1. Child “melt-down”
2. Disruption for other families in the Waiting Room
3. Embarrassment for the parent
4. Damage to the actual Waiting Room

If possible register the child in advance by telephone.

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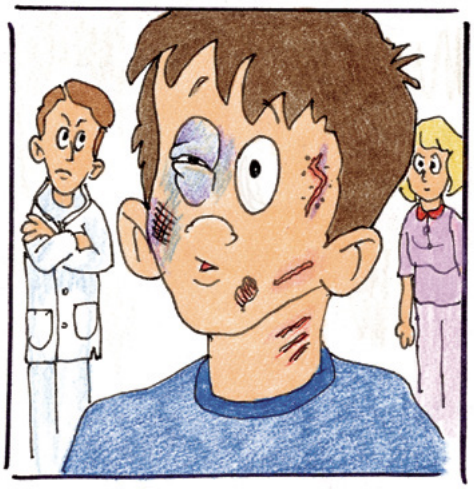
Optimizing Office Visits for Children with Autism

AUTISM CANADA

THINGS MAY NOT BE AS THEY SEEM

Despite the fact that these children may look neglected and/ or abused, consider the following;



Severe self-injurious behaviours: biting, head-banging, scratching, etc

Limited, intermittent, or no pain sensation

No sense of danger or what will hurt them

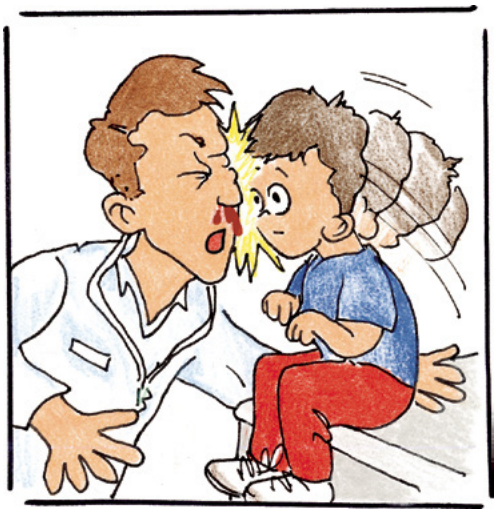
Severe sensory issues making it virtually impossible to change their clothing or bathe them

EXPECT THE UNEXPECTED!

Be alert for your own safety

Some children with autism may not understand that you are there to help them, instead they may see you as a threat. They can be calm at one moment and erupt the next and may:

- Head-butt
- Bite
- Kick
- Spit
- Punch
- Pull hair
- BOLT
- Etc, Etc, Etc



Respect the child's personal space, (it may be much larger than you expect)

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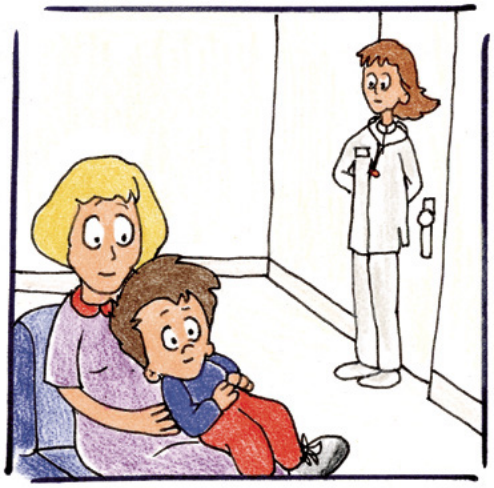
Optimizing Office Visits for Children with Autism

AUTISM CANADA

LIMITED UNDERSTANDING AND SPEECH

Some children may be able to recite entire Disney videos, yet may be unable to tell you their name or if they hurt.

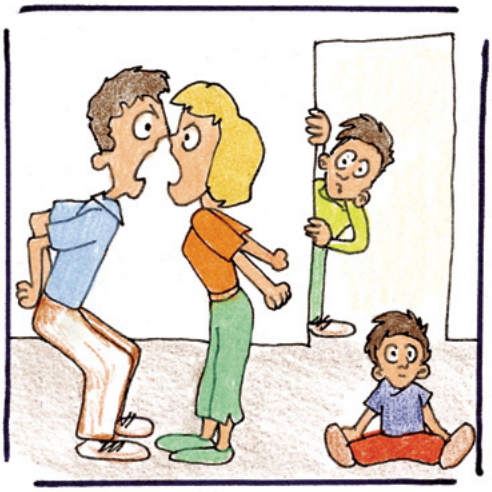
They may have difficulty processing auditory information.



CONSIDER THE IMPACT OF AUTISM ON THE ENTIRE FAMILY

Refer when appropriate, e.g.

- Sibling Workshops
- Family Support groups, etc
- Respite services



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We would like to thank the Royal Bank of Canada. Because of their support Autism Canada continues to be able to print the most up-to-date information in the Autism Physician Handbooks and distribute them to Health Care Professionals and families across Canada.

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