

"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 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](http://www.autismcanada.org) to learn how you can help.

**Autism Canada**

[www.autismcanada.org](http://www.autismcanada.org)

P.O. Box 366, Bothwell, Ontario N0P 1C0

(519) 695-5858

[info@autismcanada.org](mailto:info@autismcanada.org)

Registered Charitable Organization 13160 7657 RR0001



# Table of Contents



About Autism Canada . . . . . 1

Table of Contents . . . . . 3

Screening Tools . . . . . 4

CHAT Poster . . . . . 5

M-CHAT-R Screening Tool . . . . . 6

**VISUAL GUIDE TO BEHAVIOURAL SYMPTOMS . . . . . 8**

    Social Issues . . . . . 8

    Communications Issues . . . . . 11

    Autism-Related/Repetitive Behaviour . . . . . 12

    Motor Issues . . . . . 16

    Sensory Overload . . . . . 18

    Sensory Issues . . . . . 19

    Self-Injurious . . . . . 22

    Safety Issues . . . . . 23

Gastro-Intestinal Disturbances . . . . . 26

Sleep Disturbances / Altered Pain Responses / Seizures . . . . . 27

Impact on Family . . . . . 28

The Role of Early Intervention (Educational) . . . . . 29

List of Potential Referrals . . . . . 30

**OPTIMIZING OFFICE VISITS FOR  
CHILDREN WITH AUTISM . . . . . 31**

Acknowledgements . . . . . 36

# 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.

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

Page 1 of 2 (To be completed at 18-month visit)

## 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? ( <b>For example</b> , 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? ( <b>For example</b> , 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? ( <b>For example</b> , furniture, playground equipment, or stairs)	Yes	No
05.	Does your child make unusual finger movements near his or her eyes? ( <b>For example</b> , 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? ( <b>For example</b> , 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? ( <b>For example</b> , pointing to an airplane in the sky or a big truck in the road)	Yes	No
08.	Is your child interested in other children? ( <b>For example</b> , 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? ( <b>For example</b> , 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? ( <b>For example</b> , 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? ( <b>For example</b> , 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? ( <b>For example</b> , 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? ( <b>For example</b> , 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? ( <b>For example</b> , 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? ( <b>For example</b> , 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? ( <b>For example</b> , being swung or bounced on your knee)	Yes	No

(See next page for scoring recommendations)

© 2009 Diana Robins, Deborah Fein, & Marianne Barton



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

Page 2 of 2



## 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

<b>HIGH RISK</b> for autism group	Total Score of 8 - 20
<b>MEDIUM RISK</b> for autism group	Total Score of 3 - 7
<b>LOW RISK</b> 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](http://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.

# Behavioural Symptoms of Autism



Social

Communication

Autism-Related/Repetitive Behaviours

Motor

Sensory Overload

Sensory

Self Injurious

Safety



# Behavioural Symptoms of Autism



## 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



# Behavioural Symptoms of Autism



## 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



# Behavioural Symptoms of Autism



## 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.





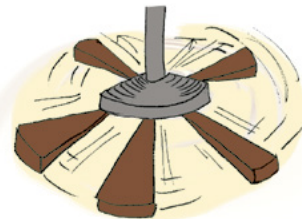
# Behavioural Symptoms of Autism



## AUTISM-RELATED/REPETITIVE BEHAVIOURS



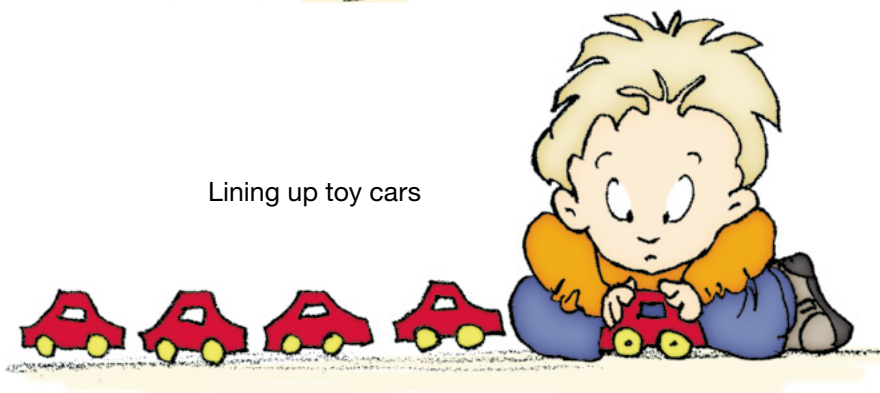
Flapping



Staring at ceiling fan



Spinning



Lining up toy cars

# Behavioural Symptoms of Autism



## 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

# Behavioural Symptoms of Autism



## AUTISM-RELATED/REPETITIVE BEHAVIOURS



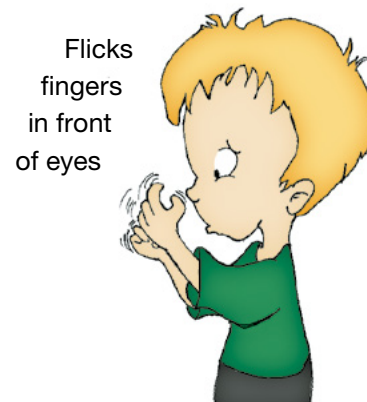
Rocking



Obsessively switching  
light on and off



Eats unusual  
objects like clothes,  
mattress or drapes



Flicks  
fingers  
in front  
of eyes



# Behavioural Symptoms of Autism



## AUTISM-RELATED/REPETITIVE BEHAVIOURS

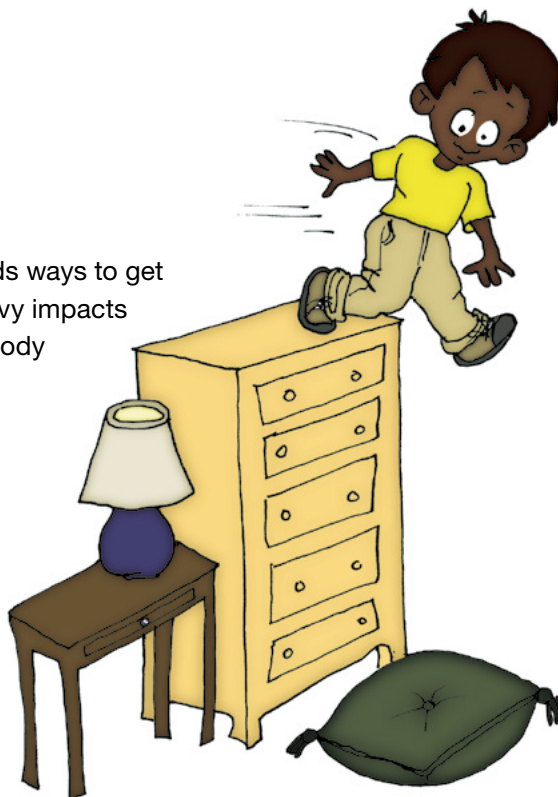
Finds ways  
to get  
deep-pressure  
applied to body



Smearing feces



Finds ways to get  
heavy impacts  
to body



# Behavioural Symptoms of Autism



## 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

# Behavioural Symptoms of Autism



## MOTOR ISSUES

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



Exceptional Balance

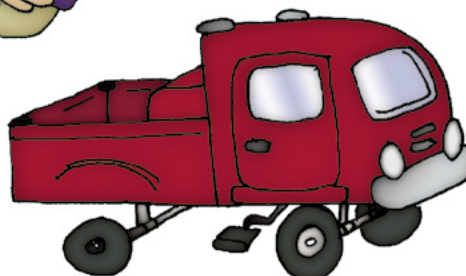
OR



Clumsy



Unable to ride tricycles, or trucks

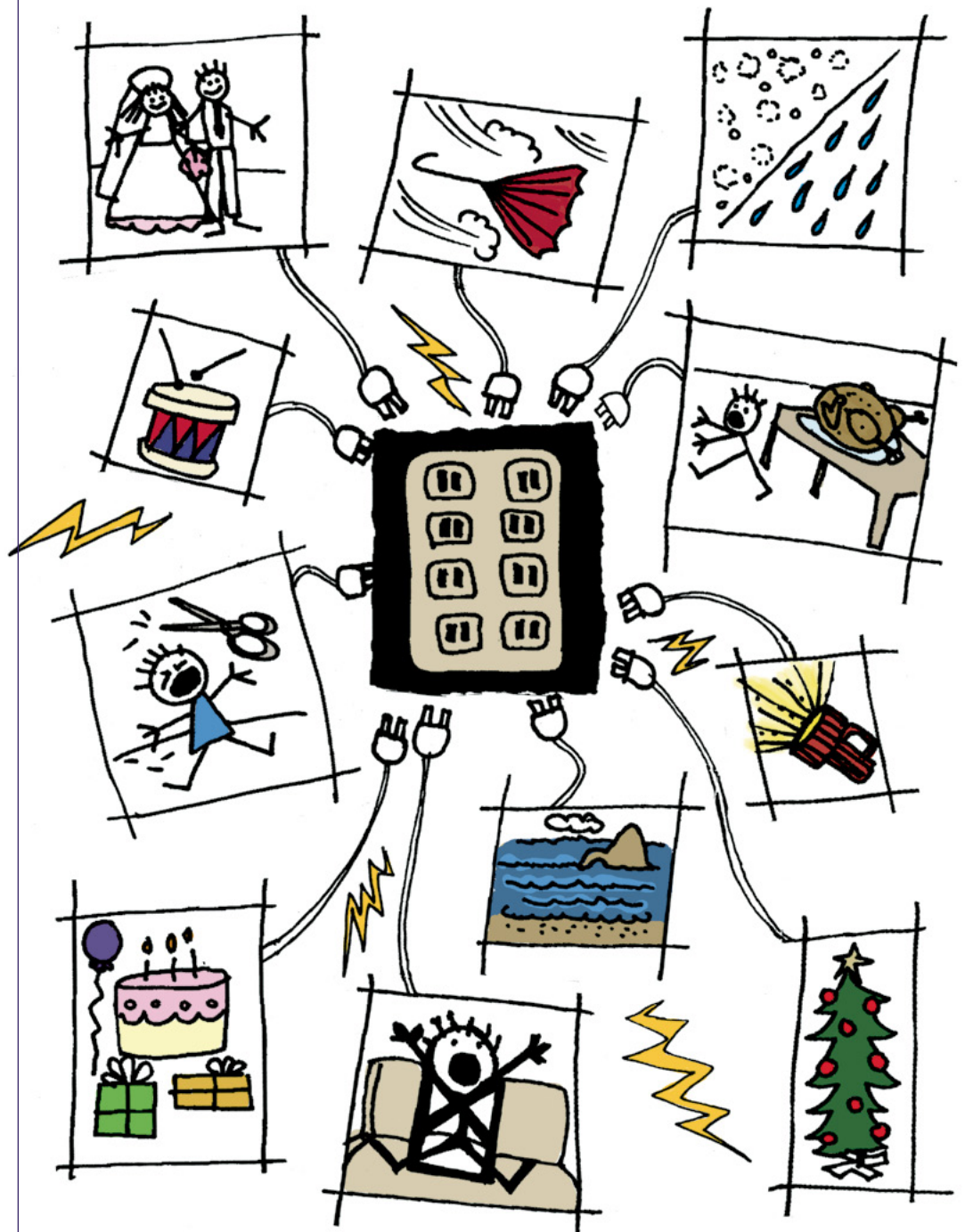


Drooling

# Behavioural Symptoms of Autism



## 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.



# Behavioural Symptoms of Autism



## SENSORY ISSUES

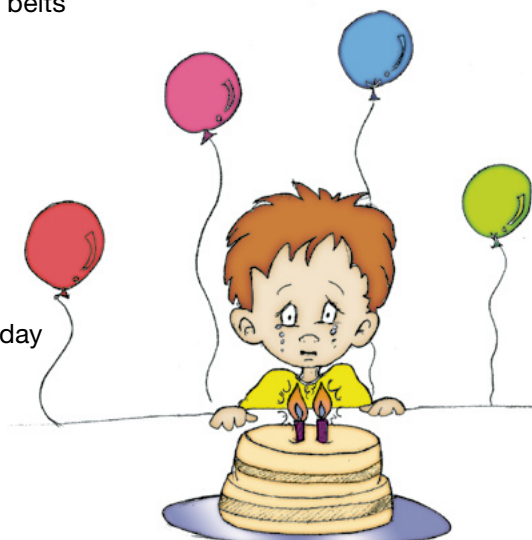
Extreme difficulty  
with haircuts



Unable to  
tolerate  
seat belts



May not like new  
experiences such as birthday  
candles or balloons



May be almost  
impossible to bathe



# Behavioural Symptoms of Autism



## 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



# Behavioural Symptoms of Autism



## SENSORY ISSUES



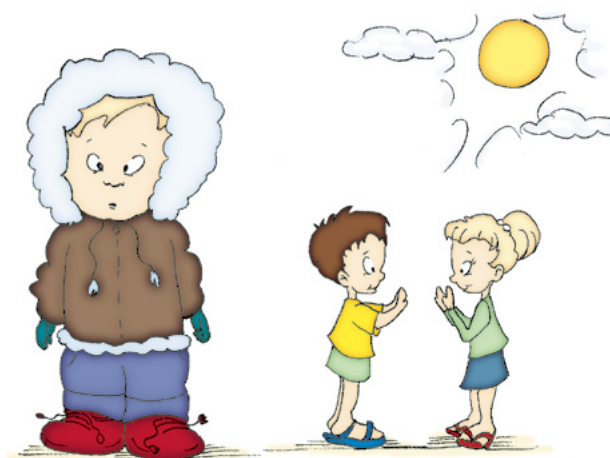
May have difficulty wearing outdoor clothing in winter

Resists having clothing changed



May rip at own clothes, labels and seams

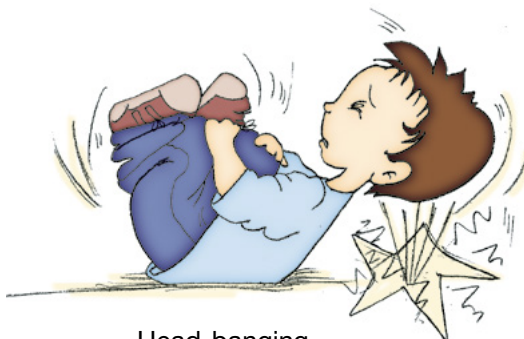
During summer may insist on wearing winter clothing



# Behavioural Symptoms of Autism



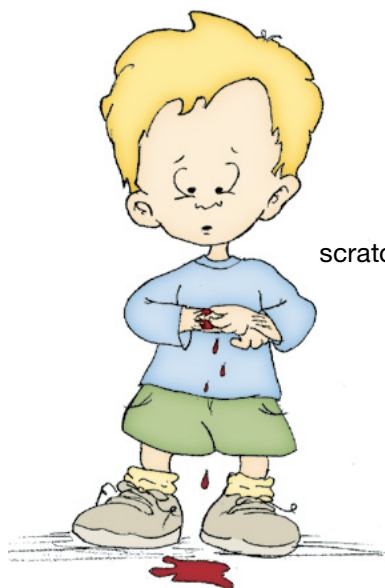
## SELF INJURIOUS BEHAVIORS



Head-banging



Self-biting with no  
apparent  
pain



Ripping and  
scratching at skin



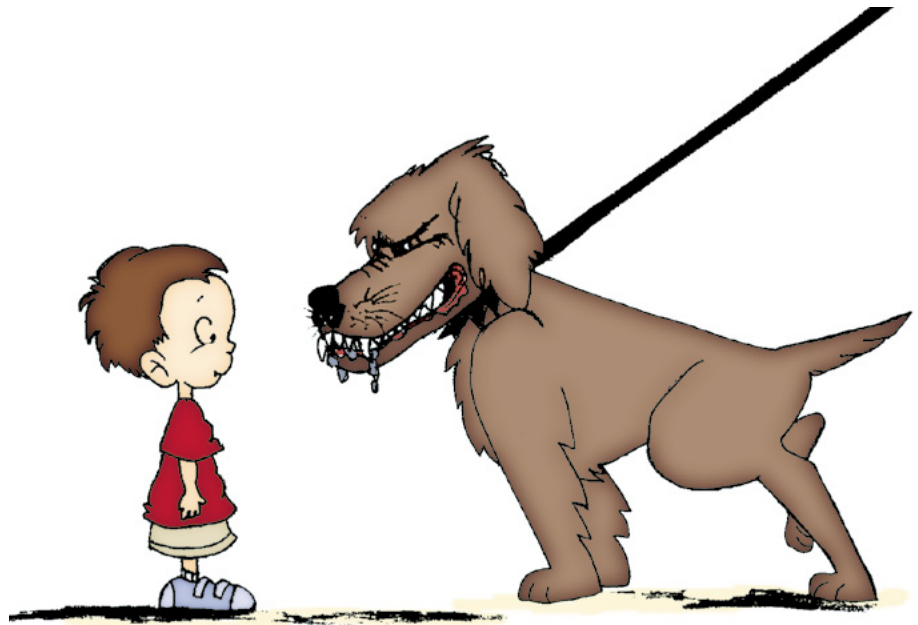
Pulling out  
handfuls of hair



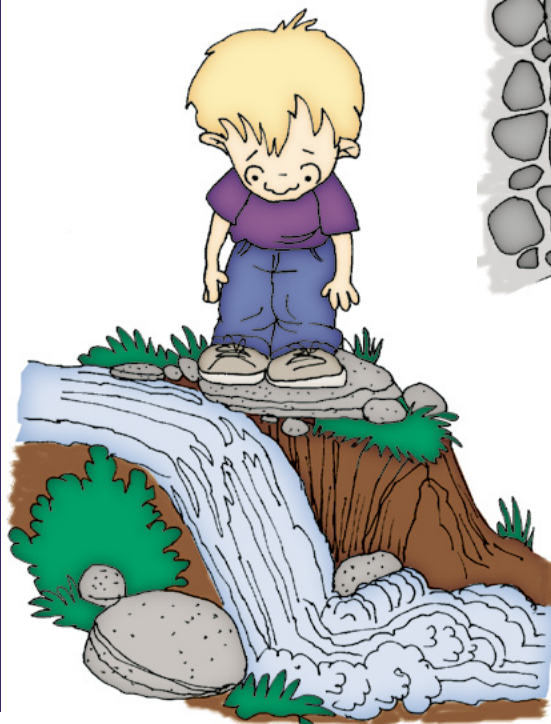
# Behavioural Symptoms of Autism



## SAFETY ISSUES



No sense of danger



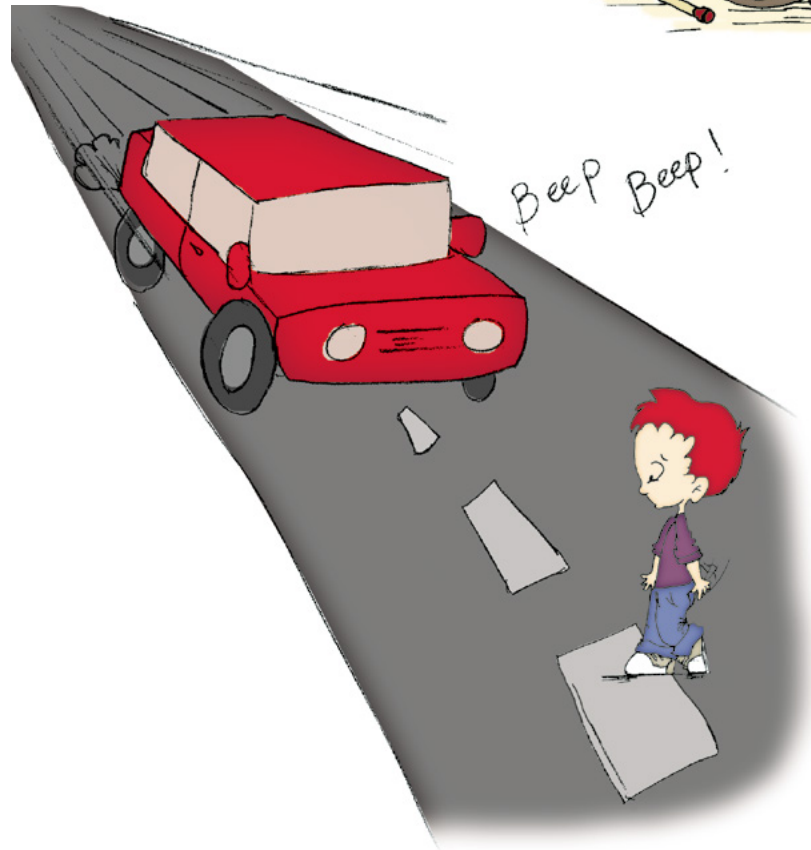
# Behavioural Symptoms of Autism



## SAFETY ISSUES



Doesn't recognize situations  
where he may get hurt



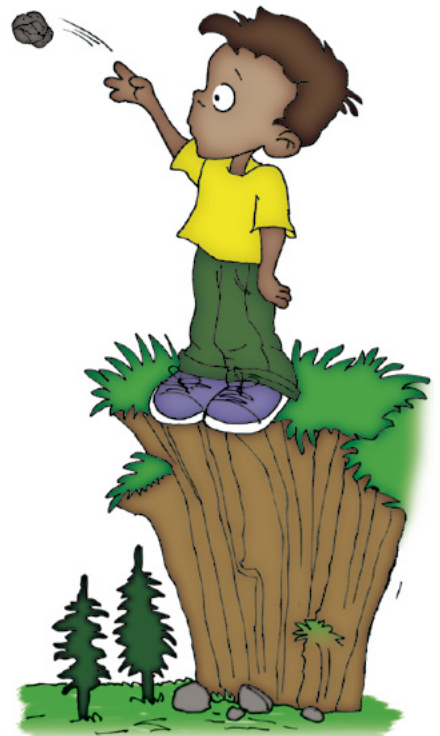
# Behavioural Symptoms of Autism



## SAFETY ISSUES



No fear of heights



# Gastro-Intestinal Disturbances



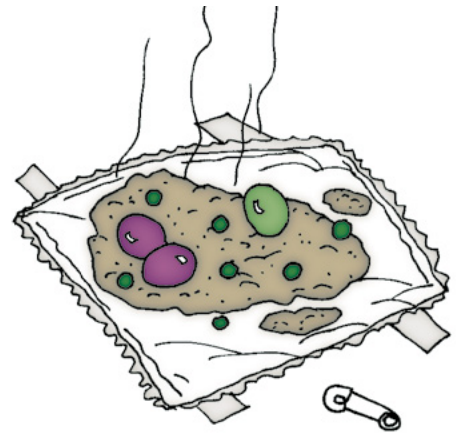
**Dr. Tim Buie**, a Gastroenterologist at Harvard University and Mass General Hospital, Boston, has performed endoscopies in over 1000 children with autism. In the initial 400 children, he discovered that GI problems were much more prevalent in children with autism than in normal controls.

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

**Consider referral to GI where appropriate.**



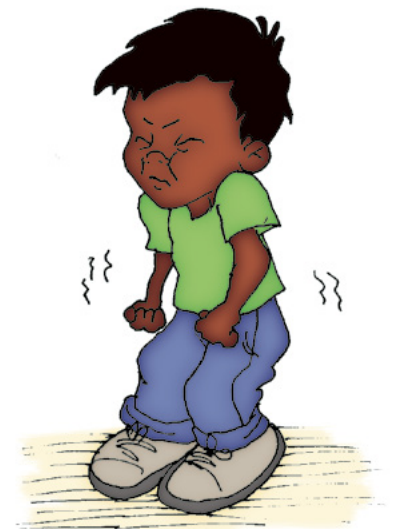
Diarrhea



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



**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.

# The Role of Early Educational Interventions



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 **Early Intervention (EI)** for evaluation if any developmental delay is suspected.

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

# Summary of Potential Referrals



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



# Optimizing Office Visits for Children with Autism



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.



# Optimizing Office Visits for Children with Autism



## CONSIDER ADVANCE TELEPHONE-CONFERENCE WITH THE PARENT

**Advantages** include the ability to:

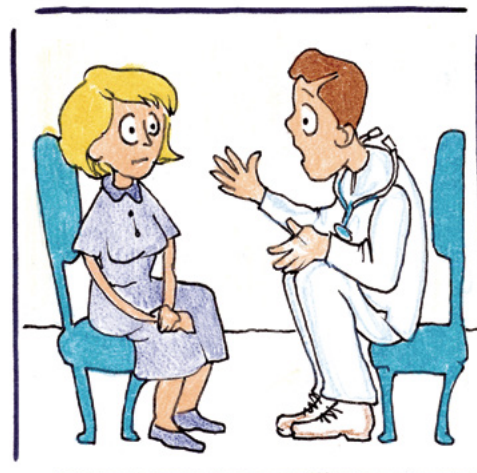
1. Obtain a clear history from the parent without the distraction of the child present.
2. Ask the parent for their suggestions as to how the visit could be made easier.
3. Ask the parent to bring a motivator (bribe) for the child to assist with exam.
4. If you anticipate the need for blood draw, consider 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](http://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).



# Optimizing Office Visits for Children with Autism



## 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:

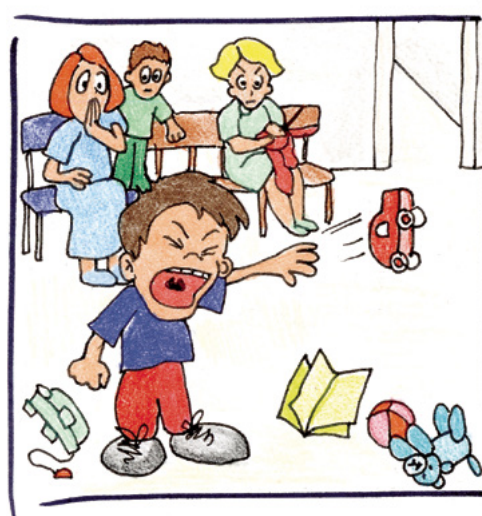
Waiting rooms can be stressful and overwhelming. Consider scheduling the child as the first appointment of the day, or during non-peak hours.

### 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.



# Optimizing Office Visits for Children with Autism



## THINGS MAY NOT BE AS THEY SEEM

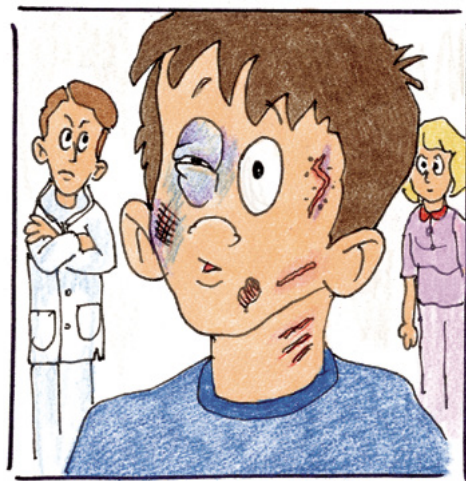
Despite the fact that these children may look neglected and/ or abused, consider the following;

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)





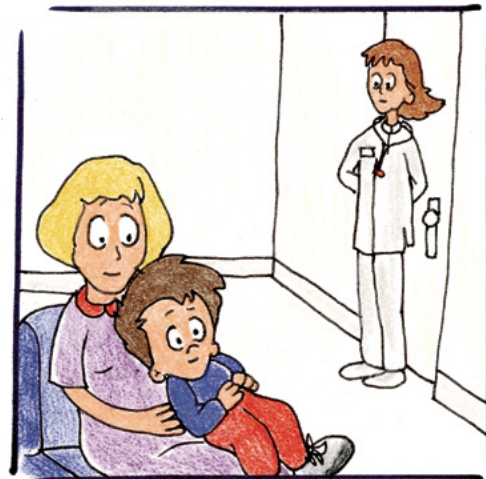
# Optimizing Office Visits for Children with Autism



## 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



# Acknowledgements



We would like to thank the Help Autism Now Society for creating this wonderful handbook and for sharing it with us. By allowing us to add our distinctly Canadian content it has, and will continue to be, more accessible and helpful to a far greater number of families.



We would like to thank Bailey Metal Products and Starbucks Coffee Canada, Toronto locations, for their generosity. Their support of this project allowed Autism Canada to print and distribute the first run of the Autism Physician Handbooks.



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.



**RBC Foundation**



# **AUTISM CANADA'S PROVINCIAL AND TERRITORIAL COUNCIL MEMBERS**

---

**Autism Society of British Columbia**  
**[www.autismbc.ca](http://www.autismbc.ca)**

**Autism Society of Alberta**  
**[www.autismalberta.ca](http://www.autismalberta.ca)**

**Autism Calgary Association**  
**[www.autismcalgary.com](http://www.autismcalgary.com)**

**Autism Edmonton**  
**[www.autismedmonton.org](http://www.autismedmonton.org)**

**Saskatchewan Families for Effective Autism Treatment – SASKFeat**  
**[www.saskfeat.com](http://www.saskfeat.com)**

**Autism Society Manitoba**  
**[www.autismmanitoba.com](http://www.autismmanitoba.com)**

**Autism Ontario**  
**[www.autismontario.com](http://www.autismontario.com)**

**Fédération québécoise de l'autisme**  
**[www.autisme.qc.ca](http://www.autisme.qc.ca)**

**Autism Nova Scotia**  
**[www.autismnovascotia.ca](http://www.autismnovascotia.ca)**

**Autism Society PEI**  
**[www.autismsociety.pe.ca](http://www.autismsociety.pe.ca)**

**Autism Society, Newfoundland and Labrador**  
**[www.autism.nf.net](http://www.autism.nf.net)**

**Autism Society NWT**  
**[www.nwtautismsociety.org](http://www.nwtautismsociety.org)**

**Autism Yukon**  
**[www.autismyukon.org](http://www.autismyukon.org)**

## **AUTISM CANADA**

**P.O. BOX 366 BOTHWELL, ONTARIO N0P 1C0**

**PHONE: (519) 695-5858 FAX: (519) 695-5757**

**EMAIL: [INFO@AUTISMCANADA.ORG](mailto:INFO@AUTISMCANADA.ORG)**

**REGISTERED CHARITABLE ORGANIZATION: 13160 7657 RR0001**

**[WWW.AUTISMCANADA.ORG](http://WWW.AUTISMCANADA.ORG)**