“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 caregivers 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 Foundation

Autism
Physician Handbook
CANADIAN EDITION
Autism Canada Foundation’s Message

The road to finding a cause and cure for autism is likely a long one, and we will not see the end without the help of a growing community of dedicated families, professionals and caregivers who share a common goal. We consider ourselves to be among the leaders of this community. At Autism Canada, we:

- Support Canadians by providing medical and behavioural treatment information to help those affected by autism;
- Expand health care professionals’ knowledge and awareness of autism as a treatable illness affecting the whole body;
- Work to influence policy within governments to provide public health initiatives and policy change;
- Enable research into the causes and treatments for autism.

Autism Canada supports a “multi-disciplinary” approach to treating individuals with an Autism Spectrum Disorder (ASD), combining medical, nutritional and behavioural treatments. We encourage parents to take a comprehensive, holistic approach to treatment and partner with informed licensed Health Care Professionals to provide the best care for their child.

The social and economic impact of autism is undoubtedly felt by the vast majority of Canadians. As the rate of incidence has been growing in recent years, Autism Canada has felt an increasing responsibility to help parents, physicians and other caregivers and individuals diagnosed with autism.

Of course, 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 us continue Changing Minds, Changing Lives. Changing the Course of Autism.
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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, pre-school aged, teenager or adult. They may be found online at this link. http://www.autismcanada.org/aboutautism/screeningtools.html

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 Toddlers (CHAT)
- Modified Checklist for Autism in Toddlers (M-CHAT)
- Screening Tool for Autism in Toddlers and Young Children (STAT)

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

The Autism Physician Handbook features CHAT.
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)
### SECTION A: TO BE COMPLETED BY PARENT

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
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<tbody>
<tr>
<td>Does your child enjoy being swung, bounced on your knee, etc?</td>
<td></td>
<td></td>
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<tr>
<td>Does your child take an interest in other children?</td>
<td></td>
<td></td>
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<tr>
<td>Does your child like climbing on things, such as up stairs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does your child enjoy playing peek-a-boo/hide-and-seek?</td>
<td></td>
<td></td>
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<tr>
<td>Does your child ever PRETEND, for example, to make a cup of tea using a toy cup and teapot, or pretend other things?</td>
<td></td>
<td></td>
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<tr>
<td>Does your child ever use his/her index finger to point, to ASK for something?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does your child ever use his/her index finger to point, to indicate INTEREST in something?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can your child play properly with small toys (e.g. cars or bricks) without just mouthing, fiddling or dropping them?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does your child ever bring objects over to you (parent) to SHOW you something?</td>
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</table>

### SECTION B: PHYSICIAN OR HEALTHCARE PROVIDER

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>During the appointment, has the child made eye contact with you?</td>
<td></td>
<td></td>
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<tr>
<td>Get child's attention, then point across the room at an interesting object and say 'Oh look! There's a (name of toy)!' Watch child's face. Does the child look across to see what you are pointing at?</td>
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<tr>
<td>Get the child's attention, then give child a miniature toy cup and teapot and say 'Can you make me a cup of tea?' Does the child pretend to pour out tea, drink it, etc.?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Say to the child 'Where's the light?', or 'Show me the light'. Does the child POINT with his/her index finger at the light?</td>
<td></td>
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<tr>
<td>Can the child build a tower of bricks? (If so, how many________)</td>
<td></td>
<td></td>
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B2: To record Yes on this item, ensure the child has not simply looked at your hand, but has actually looked at the object you are pointing at.

B3: If you can elicit an example of pretending in some other game, score a Yes on this item.

B4: Repeat this with ‘Where’s the teddy?’ or some other unreachable object, if child does not understand the word light. To record Yes on this item, the child must have looked up at your face around the time of pointing.

*(See next page for scoring recommendations)*
CHAT (Checklist for Autism in Toddlers)

CHAT KEY ITEMS

SECTION A
- A5: Pretend play
- A7: Protodeclarative pointing

SECTION B
- B2: Following a point
- B3: Pretending
- B4: Producing a point

CHAT NON-KEY ITEMS

SECTION A
- A1: Rough and tumble play
- A2: Social interest
- A3: Motor development
- A4: Social play
- A6: Protoimperative pointing
- A8: Functional play
- A9: Showing

SECTION B
- B1: Eye contact
- B5: Tower of bricks

RISK ASSIGNMENT

**HIGH RISK** for autism group  
Fail (NO answer) A5, A7, B2, B3, B4

**MEDIUM RISK** for autism group  
Fail A7, B4 (but not in high risk group)

**LOW RISK** for autism group  
Not in other two risk groups

MANAGEMENT RECOMMENDATIONS:

High risk group:  
Refer to developmental clinic as well as ESD (Educational Services Department).

Medium risk group:  
High suspicion – refer as above  
Low suspicion – Re-test in one month

Low risk group:  
If there are any NO answers, re-test in one month.
Behavioural Symptoms of Autism

Social

Communication

Bizarre / 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.
May strongly resist being held, hugged or kissed by parents.

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

May not raise arms to be picked up from crib when someone reaches out to pick him up.
Children with autism are often 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. Typical children communicate their needs by verbalizing, or non-verbal methods such as pointing.
Behavioural Symptoms of Autism

BIZARRE / REPETITIVE BEHAVIOURS

- Flapping
- Staring at ceiling fan
- Spinning
- Lining up toy cars
Behavioural Symptoms of Autism

BIZARRE / REPETITIVE BEHAVIOURS

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

May not play appropriately with toys and instead focuses only on one aspect, like spinning the wheels of a toy car.

Picking lint in the sunlight.
Behavioural Symptoms of Autism

BIZARRE / 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

**BIZARRE / REPETITIVE BEHAVIOURS**

- Finds ways to get deep-pressure applied to body
- Smearing feces
- Finds ways to get heavy impacts to body
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
- Clumsy
- Unable to ride tricycles, or trucks
- Drooling
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
Behavioral Symptoms of Autism

SAFETY ISSUES

No sense of danger
Behavioural Symptoms of Autism

SAFETY ISSUES

Autism Canada

Doesn’t recognize situations where he may get hurt

Beeep Beeep!
Behavioural Symptoms of Autism

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**
- **Constipation**
- Severe self-limiting diet and/or food sensitivity

Undigested food in stool
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.

SEIZURES
Co-morbidity with seizures increasing with age. Unknown etiology

ALTERED PAIN RESPONSES
Diminished / Absent Pain Responses or Heightened Pain Responses
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 behavior, 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 Specialist
2. Evaluation by Early Intervention
3. Hearing Evaluation
4. Speech Therapy
5. Physical Therapy
6. Occupational Therapy
7. Pediatric GI Specialist (if child has severe diarrhea / constipation / bloody stools / undigested food / frequent vomiting)
8. Neurologist (if seizures present)
9. Child Psychiatrist / Psychologist
10. Social Worker / Family Counseling
11. Local Parent Support Groups
As Physicians we are primarily trained to look for sickness. Children with autism rarely look sick; they may look perfectly normal and have attained all their pediatric milestones.

Instead 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.
Parents are experts at “reading” their child. Where possible treat any physical symptoms as you would a normal child, (without letting autism cloud your judgment).

**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.
Consider:
Scheduling the child as the first appointment of the day, (ten minutes earlier will prevent the child from seeing other people when he arrives).

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.

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
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 usual)

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 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!

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 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
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 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 ability to add our distinctly Canadian content will only serve to make it more accessible and to help a far greater number of families.

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