

**Appendix 1: The Ritvo Autism Asperger's Diagnostic Scale-Revised (RAADS-R) and Scoring Instructions****RAADS-R©****Ritvo Autism-Asperger's Diagnostic Scale – Revised***All information on this scale is strictly confidential*

- \* 1. Your name \_\_\_\_\_
- \* 2. Your address \_\_\_\_\_  
\_\_\_\_\_
- \* 3. Your phone number ( \_\_\_\_ ) \_\_\_\_\_
- \* 4. Today's date \_\_\_\_\_
- \* 5. Your age in years \_\_\_\_\_
- Your gender: \* 6. Male ☐ \* 7. Female ☐
- Marital status: \* 8. Single ☐ \* 9. Married ☐ \* 10. Divorced ☐
- \* 11. Not married but in a significant relationship ☐
- Do you have children? \* 12. Yes ☐ \* 13. No ☐
- \* 14. If yes, list their sexes, ages and any psychiatric or neurological disabilities they may have including autism and Asperger's Disorder:
- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_

Do you have or have you ever had a driver's license? Yes ☐ No ☐

- \* 17. The highest grade passed or degree earned in school \_\_\_\_\_
- \* 18. Was this in regular class? ☐
- \* 19. Or special education? ☐
- \* 20. Have you ever been diagnosed or labelled as having Autistic Disorder, Asperger's Disorder, High Functioning Autism, Pervasive Developmental Disorder, Dyslexia, Mental Retardation, Learning Disability or another psychiatric or neurological disorder?
- If so, please name the diagnosis or label, when it was given and by whom (name the doctor, clinic or a school). Please use other paper if necessary.
- Diagnosis: \_\_\_\_\_
- Name of doctor, clinic or other: \_\_\_\_\_
- Date of diagnosis: \_\_\_\_\_

When did you begin speaking?

- \* 21. I began at the usual time (around my second birthday at 24 months of age)
- \* 22. I began speaking late (at or later than age 2½ or 30 months)
- \* 23. I have no information as to when I began speaking or early language problems.

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It will take you about an hour to answer all the questions.

Some life experiences and personality characteristics that may apply to you		Check only one column			
		True now and when I was young	True only now	True only when I was younger than 16	Never true
1*	I am a sympathetic person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	I often use words and phrases from movies and television in conversations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I am often surprised when others tell me I have been rude.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Sometimes I talk too loudly or too softly, and I am not aware of it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I often don't know how to act in social situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6*	I can "put myself in other people's shoes."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I have a hard time figuring out what some phrases mean, like "you are the apple of my eye."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	I only like to talk to people who share my special interests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I focus on details rather than the overall idea.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	I always notice how food feels in my mouth. This is more important to me than how it tastes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11*	I miss my best friends or family when we are apart for a long time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Sometimes I offend others by saying what I am thinking, even if I don't mean to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	I only like to think and talk about a few things that interest me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	I'd rather go out to eat in a restaurant by myself than with someone I know.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	I cannot imagine what it would be like to be someone else.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	I have been told that I am clumsy or uncoordinated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	Others consider me odd or different.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18*	I understand when friends need to be comforted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	I am very sensitive to the way my clothes feel when I touch them. How they feel is more important to me than how they look.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Some life experiences and personality characteristics that may apply to you	Check only one column			
	True now and when I was young	True only now	True only when I was younger than 16	Never true
20. I like to copy the way certain people speak and act. It helps me appear more normal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. It can be very intimidating for me to talk to more than one person at the same time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I have to “act normal” to please other people and make them like me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23* Meeting new people is usually easy for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I get highly confused when someone interrupts me when I am talking about something I am very interested in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. It is difficult for me to understand how other people are feeling when we are talking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26* I like having a conversation with several people, for instance around a dinner table, at school or at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I take things too literally, so I often miss what people are trying to say.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. It is very difficult for me to understand when someone is embarrassed or jealous.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Some ordinary textures that do not bother others feel very offensive when they touch my skin.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I get extremely upset when the way I like to do things is suddenly changed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. I have never wanted or needed to have what other people call an “intimate relationship.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. It is difficult for me to start and stop a conversation. I need to keep going until I am finished.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33* I speak with a normal rhythm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. The same sound, color or texture can suddenly change from very sensitive to very dull.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. The phrase “I’ve got you under my skin” makes me very uncomfortable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Sometimes the sound of a word or a high-pitched noise can be painful to my ears.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37* I am an understanding type of person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Some life experiences and personality characteristics that may apply to you	Check only one column			
	True now and when I was young	True only now	True only when I was younger than 16	Never true
38. I do not connect with characters in movies and cannot feel what they feel.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. I cannot tell when someone is flirting with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. I can see in my mind in exact detail things that I am interested in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. I keep lists of things that interest me, even when they have no practical use (for example sports statistics, train schedules, calendar dates, historical facts and dates).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. When I feel overwhelmed by my senses, I have to isolate myself to shut them down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43* I like to talk things over with my friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. I cannot tell if someone is interested or bored with what I am saying.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. It can be very hard to read someone's face, hand and body movements when they are talking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. The same thing (like clothes or temperatures) can feel very different to me at different times.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47* I feel very comfortable with dating or being in social situations with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48* I try to be as helpful as I can when other people tell me their personal problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. I have been told that I have an unusual voice (for example flat, monotone, childish, or high-pitched).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. Sometimes a thought or a subject gets stuck in my mind and I have to talk about it even if no one is interested.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. I do certain things with my hands over and over again (like flapping, twirling sticks or strings, waving things by my eyes).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. I have never been interested in what most of the people I know consider interesting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53* I am considered a compassionate type of person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. I get along with other people by following a set of specific rules that help me look normal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55. It is very difficult for me to work and function in groups.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Some life experiences and personality characteristics that may apply to you	Check only one column			
	True now and when I was young	True only now	True only when I was younger than 16	Never true
56. When I am talking to someone, it is hard to change the subject. If the other person does so, I can get very upset and confused.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. Sometimes I have to cover my ears to block out painful noises (like vacuum cleaners or people talking too much or too loudly).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58* I can chat and make small talk with people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59. Sometimes things that should feel painful are not (for instance when I hurt myself or burn my hand on a stove).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60. When talking to someone, I have a hard time telling when it is my turn to talk or to listen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61. I am considered a loner by those who know me best.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62* I usually speak in a normal tone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63. I like things to be exactly the same day after day and even small changes in my routines upset me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64. How to make friends and socialize is a mystery to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65. It calms me to spin around or to rock in a chair when I am feeling stressed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66. The phrase, "He wears his heart on his sleeve," does not make sense to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
67. If I am in a place where there are many smells, textures to feel, noises or bright lights, I feel anxious or frightened.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
68* I can tell when someone says one thing but means something else.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
69. I like to be by myself as much as I can.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
70. I keep my thoughts stacked in my memory like they are on filing cards, and I pick out the ones I need by looking through the stack and finding the right one (or another unique way).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
71. The same sound sometimes seems very loud or very soft, even though I know it has not changed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
72* I enjoy spending time eating and talking with my family and friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
73. I can't tolerate things I dislike (like smells, textures, sounds or colors).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Some life experiences and personality characteristics that may apply to you	Check only one column			
	True now and when I was young	True only now	True only when I was younger than 16	Never true
74. I don't like to be hugged or held.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
75. When I go somewhere, I have to follow a familiar route or I can get very confused and upset.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
76. It is difficult to figure out what other people expect of me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
77* I like to have close friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
78. People tell me that I give too much detail.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
79. I am often told that I ask embarrassing questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80. I tend to point out other people's mistakes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for your cooperation!

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## Appendix 2: Instructions for Scoring the Scale

The scale contains two types of questions:

- 64 questions describing specific symptoms of ASD. These are scored in order of severity from: “true now and when I was young” = 3, to “never true” = 0.
- 16 questions describing non symptomatic (normative) behaviors. These are score: “true now and when I was young” = 0 to “never true” = 3. These questions have asterisks by their number (Table 9).

**Table 9** Scores for the four possible answers

Answer checked by the subject	True now and when I was young	Only true now	True only when i was young	Never true
Symptom based questions $N = 64$ Example: “I take things too literally so I often miss what people are trying to say”. (No asterisk after question number)	3	2	1	0
Normative questions $N = 16$ Example: “I” * “I am a sympathetic person”. (Asterisk after question number)	0	1	2	3

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