

## Autistic Spectrum Disorder - Suggestions for texture/ taste/ nutrition modification

This table is for reference purposes only. It provides a few examples of food items according to their food groups. It also constructs the possible experiences of child when consuming those foods. The last column of the table suggests some ideas aimed at increasing food acceptability amongst children. Such suggestions also aim to improve the nutritional intake of children. If you notice your child experiencing any of the issues noted in the table, you could try to **slowly implement** changes in your child's diet. Always check your child's tolerance level and acceptability. For example, if skim milk is not accepted by your child, you could try to introduce semi-skim milk into your child's diet to replace full-cream milk. Again, examine what is the priority for your child before implementing changes in his/her diet – such as, the nutrition of your child, or for ease of convenience during outings.

Food Group	Examples of Food	Possible issue(s) experienced by child	Suggestions/ Strategies
<b>Bread/ Cereal:</b> Bread	White bread Wholemeal/ wholegrain bread Tortilla Taco shell	? Crust on bread ? Foods sticks to teeth during chewing ? Grain in bread causes discomfort during chewing if your child is orally sensitive to tactile sensations ? Poor nutritional value if white bread (i.e. low in fibre) is only eaten	<ul style="list-style-type: none"> <li>• Remove the crust from bread</li> <li>• Toast bread or use flat bread</li> <li>• Use taco shells or thin crispy-crust pizza bases if stickiness is an issue</li> <li>• Use high fibre white bread</li> <li>• Offer highly nutritious fillings</li> </ul>
Cereal Rice Pasta Noodle	Breakfast cereals Basmati/ Jasmine rice Spaghetti Egg noodles	? Mushy texture ? Chewy texture ? Difficulty in chewing long foods (e.g. spaghetti, fettuccine) with a firm texture (? Oral motor skills)	<ul style="list-style-type: none"> <li>• Add dried/fresh crispy fruit to reduce the mushiness</li> <li>• Add seeds/nuts to oat porridge, when no food allergies are involved</li> <li>• Eat the cereal shortly after milk is added</li> <li>• Replace milk with yoghurt on cereal to better maintain the crispiness of cereal/muesli</li> <li>• Cook pasta longer to provide a softer texture</li> <li>• Provide a smaller form of pasta, e.g. penne/macaroni</li> <li>• Offer couscous to replace rice/pasta</li> </ul>

Food Group	Examples of Food	Possible issue(s) experienced by child	Suggestions/ Strategies
<b>Vegetable/ Legumes</b>  Green  Coloured	Celery Asian greens Capsicum Carrot	? Tough fibrous texture, e.g. celery and vegetable stalks ? Hard crunchy texture, e.g. carrots ? Bitterness in some vegetables, e.g. brussel sprouts and dark green vegetables ? Hot sensation during the chewing of some vegetables, e.g. capsicum and onion	<ul style="list-style-type: none"> <li>• Cut stalk vegetables into smaller pieces in order to break their fibrous texture leading to improved chewing</li> <li>• Grate the carrot finely if raw is offered in sandwiches or salads</li> <li>• Cook the vegetable until soft, if chewing is an issue</li> <li>• Remove vegetables with a bitter taste or hot sensation from your child's diet, if s/he is not ready to accept them, but replace with other various vegetables</li> </ul>
<b>Fruit</b>  Orange Yellow Red Green	Grapefruit Peach Cherry Kiwi	? Tangy or sour tastes of citrus fruits ? Waxy/hairy skin of the fruits (produces a hard to chew/greasy-like/irritating texture) ? Pulp in fruits (can't handle surprise popping sensation/course texture) ? Seeds in fruits may cause choking if the child does not know to remove them ? Edible small seeds in fruit that gives a course texture, e.g. kiwi/dragon fruit	<ul style="list-style-type: none"> <li>• Avoid sour lemons/grapefruits/oranges if the child finds them distasteful</li> <li>• Choose Valencia or Sunkist oranges that are commonly sweet</li> <li>• Offer peeled fruits</li> <li>• Avoid fruit that contains pulp, such as citrus fruit and pomegranate</li> <li>• Remove all inedible seeds from fruits before offering them to your child</li> <li>• Avoid fruits containing edible small seeds, if they are unacceptable to your child.</li> </ul>

Food Group	Examples of Food	Possible issue(s) experienced by child	Suggestions/ Strategies
<b>Meat/ Fish/ Poultry</b>  Red  Pink  White	Beef steak  Pork chop  Fish	? Tough, chewy texture from red meat/skin of meat  ? Fishy smell from seafood  ? Bony fish may choke your child  ? Afraid of blood stain on meat	<ul style="list-style-type: none"> <li>• If the child has difficulty in chewing:               <ul style="list-style-type: none"> <li>○ Remove all skin/fat from meat</li> <li>○ Stew/casserole meat dishes</li> <li>○ Offer lean mince meat or home-made patties</li> </ul> </li> <li>• If the child dislikes fishy smells:               <ul style="list-style-type: none"> <li>○ Cook fish with strong herbs , e.g. basil, thymes, rosemary, garlic, if a fishy smell is an issue</li> <li>○ Offer fish as a mixed cooked dish, e.g. seafood pot/pie</li> <li>○ Offer canned fish with marinates</li> </ul> </li> <li>• Offer fish fillets to prevent choking on bones</li> <li>• Offer well-cooked meat, especially if cooking meat with the bones attached; OR remove the bone prior to cooking</li> </ul>
<b>Dairy:</b>  Liquid	Plain/ flavoured milk  Malted milk drink  Milkshake	? Too much sugar/fat in commercial beverages  ? Dislikes the creamy/'cowy' taste of milk	<ul style="list-style-type: none"> <li>• Offer home-made milk beverages</li> <li>• Include low-fat yoghurt when preparing cold milk drinks</li> <li>• Offer low-fat milk or calcium-fortified soy milk that gives a less milky taste (as long as your child is above 2 years)</li> <li>• Add malt or chocolate powder (liquid) to the milk drink</li> </ul>
Puree	Yoghurt  Thick shake  Cheese spread	? Dislikes the waxy coating left on their tongue after eating  ? Difficulty in swallowing food with a puree consistency	<ul style="list-style-type: none"> <li>• Offer a milkshake that is prepared using low-fat yoghurt and low-fat milk</li> <li>• Offer a cheese slice on sandwiches or crackers</li> </ul>

Food Group	Examples of Food	Possible issue(s) experienced by child	Suggestions/ Strategies
<b>Dairy:</b>  Semi-viscous  solid	Ice-cream Custard Panna cotta	? Can't handle 'surprises' in oral texture ? Orally sensitive to cold temperatures ? Dislikes a 'mushy' texture in the mouth ? Over-consumption may lead to high sugar/fat intake	<ul style="list-style-type: none"> <li>• Avoid those dairy foods that are not tolerated well by your child. Find alternative dairy sources!</li> <li>• Keep this food category as occasional food</li> <li>• Prepare home-made low-fat milk ice-blocks as an alternative to commercial ice-cream during hot weather. Additional fruit blended into the milk ice-blocks may increase its acceptance.</li> </ul>
Solid	Cheddar cheese Ricotta cheese Cheese slice	? Can't handle the strong taste of certain cheeses, e.g. veined or goat's milk cheeses ? Dislikes the chalky taste of some cheese ? Over-consumption may lead to a high salt/fat intake	<ul style="list-style-type: none"> <li>• Avoid strong cheese</li> <li>• Try processed cheese, e.g. cheddar or Cheshire, which has a mild flavour</li> <li>• Try low-fat cheese options</li> <li>• Offer no more than two serves (40 g/serve) of cheese per day</li> </ul>

**Notes:**