# Supporting nutrition in those with ADHD

## A guide for dieticians and professionals

There are many ways that dietitians and clinicians can support those with attention deficit hyperactivity disorder (ADHD) to improve their wellbeing related to food and nutrition. However, to do this helpfully you must have a thorough understanding of the individuals needs, challenges and difficulties. It is also essential that you understand their challenges as part of a comprehensive and holistic picture. This means that you understand their nutritional difficulties in the context of any trauma they may have experienced, or any co-occurring conditions. For example, where food is used as an emotional management tool will require you to consider alternative emotional regulation strategies alongside any nutritional change.

The use of aids to help establish a routine to improve eating habits is something discussed in detail in this resource. However, it is essential to remember that although there are many suggestions posed here, there is no one size fits all. Clinicians should be prepared to suggest a small number of things that could be "helpful" for an individual. Doing this, rather than using open questions and a self-solution focused approach, can be more helpful. Particularly for individuals who struggle with decision paralysis, fatigue or who may become easily overwhelmed.

Individuals with ADHD are more frequently adversely affected by financial distress (Liao, 2021). Consequently, clinicians should be prepared to consider financial safety within the context of nutritional care planning. This includes a working understanding of how to make appropriate financial adjustments to any proposed suggestions.

Clinicians should also uphold a compassionate mindset. This means viewing any unplanned eating episodes, any episodes of relapse-restriction, or any other setbacks as opportunities to learn. This compassionate mindset is its own therapeutic tool and supports breaking down shame cycles. Alongside this, clinicians should consider motivation and readiness. They should avoid imposing strategies for change on a person who is not yet ready to work on these.

In individuals with nutritional challenges and ADHD who are safely ready for change, the following can offer suggestions:

## Using external scaffolds to aid helpful nutritional habits

Due to poorer internal regulation, people with ADHD may need more external scaffolds or breaks which act as behaviour prompts. Deciding which are most useful will depend on the challenges faced by the individual, and the presence of any co-occurring conditions (such as autism). Some examples may include:

- **Keeping a sensory focus** - ensuring that suggestions fit within a sensory tolerance of accepted foods or accepted environments
- **Using external prompts -** such as setting labelled alarms for food and drink breaks or using visual reminders on cupboard doors. Incorporating aids that are visible or in a well trafficked areas can also help them to stay in-mind. For example, placing a chalkboard in the hallway, or a drywipe board on the fridge.
- **Improving habit acquisition -** such as getting all food that the individual plans to eat in the day out in advance and adding clear time labels to each meal or snack time. Inattentiveness, distraction or hyper-focus on activities can also lead to missed meal. In this way, this type of habit acquisition planning can also support under eating.
- **Removing friction around change** - such as signposting to pre-made, quick and accessible food
- **Supporting a reduction in impulsivity** - such as keeping tempting foods in less accessible places or avoiding purchasing these. Alternatively, using only planned and pre-portioned quantities can be helpful. This can also be improved by:
    - Writing clear shopping lists
    - Using online deliveries
    - Avoiding shopping when hungry (high risk of impulsiveness)
    - Shopping with a trusted other.
- **Co-planning -** such as writing a clear, very specific meal plan (types, quantities and times) with the individual. This plan should include a nutritionally sufficient intake with an adequate sensory profile to meet oromotor requirements and sensory specificities
- **Time blocking -** such as creating a clear plan with specific times for eating with no foods between structured times

Some individuals may prefer a fixed routine where they eat the same things each day with some limited and nutritionally safe rotation. This rigid repetition can help manage decision-overwhelm and improve habit acquisition more simplistically. This strategy can often be overlooked by clinicians, particularly if they are

neurotypical. Therefore, understanding your clients' unique needs, ensuring nutritional safety, and suspending neuro-normative assumptions is important.

## Supporting social eating

Social eating situations can be challenging to individuals with ADHD. This can occur for several reasons but may include feeling anxious and overwhelmed in social settings, eating as a mechanism to manage anxiety, or eating as a distraction. Those with ADHD can also over-order in response to dopamine seeking and impulsivity. To support the challenges of social eating you can consider:

- **Planning -** try to decide on the meal choice (and a 'back up' meal option in case it's unavailable) before going. Ideally pre-order before being in the restaurant environment
- **Using creative options -** for someone who needs a lot of oromotor feedback and sensory variety, several small portions and sharing can be a helpful strategy to meet this need whilst avoiding over-eating. Tapas style dining is an example of this form of social eating.
- **Slowing the pace -** work on slow pacing strategies to manage impulsivity and improve fullness signals. Examples include:
    - Increasing chewing frequency
    - Putting cutlery down between mouthfuls
    - Pace-matching with another, trusted individual
- **Using distractions -** such as taking small, discrete fidget toys

## Supporting sensory-seeking eating

Individuals with a sensory-seeking profile may eat larger portions, eat more frequently and experience hyper food fixation and food-associated dopamine feedback. Collectively, these are likely to lead to a presentation (observed behavioural characteristics) of over-eating and excess weight.

To support nutritional change in those with a sensory-seeking profile you can consider:

- **Using variety -** to ensure there is adequate texture, flavour and colour variance across meals and snacks

- **The role of oromotor feedback** - by exploring whether specific food textures can be substituted for lower calorie or more nutritious alternatives
- **Developing mindful eating skills and food pacing -** by slowing down the pace of eating particularly with foods that are highly pleasurable / high risk for impulsivity and overeating.
- **Moving away from 'all or nothing' habits -** such as having a planed amount of a highly desirable food and then scheduling another managed amount at the next snack or mealtime. Allowing high risk foods to be included as part of any snack or mealtime over the day can help to prevent 'all or nothing' thinking about food. Facilitate food enjoyment up to 6 times a day in a planned, and energy-balanced, way can be helpful.
- **Limiting the portion size purchased** - using single portions rather than multi-packs or big-bags
- **Using sensory alternatives** - such as whether chew-jewellery or chewing-gum can provide a similar oromotor feedback in an energy-free way
- **Developing 'full stop' habits -** where a food/drink/taste signals a 'full stop' to end an eating episode. Examples might include a cup of tea or brushing teeth after a set intake.
- **Using supportive others to help**

## Supporting nutritional impulsivity

Acting on impulsivity is a recognised ADHD trait linked to dopamine reward centres and executive function deficits. To support those with an impulsive eating profile you can consider:

- **Avoiding 'high risk' situations** - such as situations that the person would recognise as difficult to control or places where it is hard to make wise choices. An example of this might be buffet style restaurants. High risk situations should especially be avoided when any other vulnerability factor is present. Examples of these include feeling hungry, tried or experiencing emotional discomfort. These vulnerabilities are more likely to precipitate the seeking of dopamine rewards leading to impulsive choices.
- **Developing 'external breaks'** - such as using friends, family or peers that you can socialise with who can act as an 'external brake'. In this way, they play the role of the wise-mind and support helping the individual to recognise when to stop. Non-relational examples of external brakes could include appropriately, reasonably and safely managing access to money. However, it is essential that safeguarding and any risks of financial, emotional or coercive abuse or control are *very* carefully considered and monitored when using these.

- **Using helpful planning -** making this as detailed as possible. Think carefully about what the situation is, when it might be and the details of how it may be managed. Use imagery to walk through each of the steps and work to problem solve issues, barriers or concerns as they arise. Planning strategies can include getting foods ready the night before and keeping it simple - such as a nutritious smoothie and breakfast bar then leaving the house.
- **Using low effort nutritious options** – such as having frozen diced onions, frozen veg, frozen chopped herbs, tinned fruit/veg/pulses etc to-hand for times when the individual may want to cook. These can make cooking intentions easier and reduce the likelihood of reaching for low-nutritional-value convenience foods, especially on days where energy or motivation are low.
- **Support school / work planning** - such as considering the challenges and pitfalls that might arise in the day before they happen. This supports you being able to have a pre-emptive plan in place. Pre-planning examples could include:
    - Using packed lunches
    - Pre-determined / pre-portioned snacks
    - Pre-bottled drinks
    - Making choices in advance for school meals or work canteen menus.

    These can all help to reduce the instances of buying on impulse which can have financial and nutritional consequences.

## Supporting effective problem solving in nutritional management

Using a structured process to work through effective problem-solving steps can be incredibly helpful. An example of this is:

1. **Define** the problem in as much detail as possible
2. **Develop** 10 solutions to the problem - these can range from very wild to very sensible suggestions
3. **Refine** the list to 2 suggestions and weigh up the pro/con of each
4. **Decide** on one concrete solution to try and plan this in as much detail as possible
5. **Implement** the plan
6. **Review** the plan after the agreed timeframe and appraise the outcome. Focus on positives and challenges, and identify anything learned from the process

7. **Consider** an alternative solution to plan and try next if needed - use this as an example of 'intelligent failure'. Intelligent failure means that there may have been an undesired outcome from exploring something new even though that experiment was well considered and implemented with purpose. Moving the language from something that can be internalised as 'failure based' is important.

## Supporting low nutritional intakes

Some individuals with ADHD can experience reduced nutritional intakes. This may be due to the challenges arising from:

- Low interoceptive awareness (lack of hunger)
- Poor interoceptive tolerance (feeling intense gastric pain associated to fullness)
- Behavioural restrictions (such as using extreme dieting as a method to 'quieten' internal thoughts).
- Difficulties with decisional overwhelm leading to low motivation or avoidant intakes
- Medication side effects (such as taste changes and nausea)

The following strategies may therefore be helpful for supporting nutritional change in this context:

**Low interoceptive awareness:**

1. Encourage small, frequent, energy dense meals - particularly those which are easy to prepare
2. Consider high calorie, energy dense fluids - this may include meal shakes, prescriptive supplements or protein drinks where necessary
3. Eat by the clock, not by hunger - setting reminders or alarms, and having easy to access and pre-planned meals and snacks can be useful

**Poor interoceptive tolerance:**

1. Understand, develop and maximise emotional-regulation coping skills - these can help to reduce overwhelm after meals
2. Encourage small, frequent, energy dense meals - particularly those which are easy to prepare
3. Use high calorie, energy dense fluids strategically - these can be easier to digest and tolerate
4. Time meals by the body's rhythm - consider maximising nutritional intake when the individual feels least full and most comfortable
5. Develop techniques like mindful eating, paced breathing, or distraction - which can reduce the focus on fullness

**Behavioural restriction:**

1. Maximise nutritional intake when the individual feels least vulnerable and when they can be most distracted (such as earlier in the day instead of going to bed with a full stomach)
2. Understand, develop and maximise emotional-regulation coping skills and distraction techniques
3. Consider reasons behind struggling to follow a meal plan – exploring interoceptive difficulties and physical symptoms can give a better understanding of why meal plan tolerance may be limited
4. Use a 'minimally safe' repertoire of intake - avoid adding additional sensory demands from new foods
5. Work on one sensory load at a time - think about sensory overwhelm in a complete sense and try to avoid making changes to food types, volume and frequency all at the same time. Instead, find the most well tolerated of these sensory sensitivities and make changes there first.
6. Reduce decision making and make preparation as easy as possible. This can include suspending food-norms and encouraging intakes which consume meals in their constituent parts (for example deconstructed sandwiches).

**Medication side effects:**

1. Devise a behavioural meal plan with small, frequent meals focused on nutrient dense foods
2. Bland and low-odour foods (including cold-only foods) can reduce feelings of nausea
3. Strong flavours, or palette cleansers (like ginger and peppermint), can help overcome taste changes

## Supporting fluid intake

The challenges of living with ADHD can sometimes make it hard to remember to drink. The following strategies may therefore be helpful for habit acquisition:

- Decant water/preferred drinks into a container for the day. For example, switching to a 2-litre bottle with a goal to finish it by the end of the day can reduce the barriers to fluid intake. It achieves this by avoiding the need to remember to refill a smaller bottle, needing to wash it between refills, or needing to choose the contents several times a day.
- Adding lemon, lime or berries to water to give it a fruity kick or bright colour can add more interest

- Children may enjoy using reward charts with stickers to encourage them to drink more
- Setting external prompts (such as a phone reminder or using a prompting app) can help develop regular drinking habits
- Where there are set routines, try to factor hydration in as a part of this. For example:
    - Drinking as the first morning activity or during activities (such as after brushing teeth)
    - Drinking as part of travelling to and from work / school
    - Drinking at the same time as checking emails or doing homework
    - Drinking at the same time as feeding pets or doing regular errands

    New habits can often better stick when bolted onto old ones and in doing so, can avoid feelings of overwhelm.

## Supporting nutritional adequacy

For children and young people, the use of growth charts is recommended to track changes in weight and height over time and to be able to compare this to expected growth rates (RCPCH, 2025). Several studies highlight nutrient deficiencies, notably iron, zinc, magnesium, and vitamin B6, as linked with ADHD symptoms. It has therefore been proposed that addressing such deficiencies may help to reduce the severity of ADHD symptoms. Granero (2022) focused on the contribution of iron and zinc supplementation in ADHD among children and adolescents and demonstrated that low zinc and iron levels were associated with impaired attention capacity and increased hyperactivity. In the study, zinc supplementation was observed to consistently improve ADHD symptoms. Several ADHD reviews (Pinto *et al*., 2022; Gan *et al*., 2019; Dehbokri *et al*., 2019) also highlight that those with ADHD were more likely to have low vitamin D levels. The studies, and subsequent guidance from Practice Based Evidence in Nutrition, conclude that if vitamin D is low at baseline then supplementation may improve ADHD symptoms.

The evidence for the influence of Omega-3 on ADHD symptoms is mixed. One study showed that it has a small effect for ADHD symptoms, however it concluded that "there is limited evidence that poly-unsaturated fatty acid supplementation contributes beneficial improvement in ADHD symptoms" (Armstrong *et al*., 2021). Omega-3 however, is good for overall health. Requirements can be met with 2 portions of oily fish per week (such as salmon, herring, mackerel and sardines). Linseeds, chia seeds, walnuts and soya are also high in omega-3. Vegetarians or vegans can use an algae-based supplement but

should look for a one containing both eicosapentaenoic (EPA) and docosahexaenoic (DHA).

A further recent review of nutritional management for ADHD (Lange *et al*., 20223) was unable to make recommendations regarding the use of micronutrients or probiotics in the management of ADHD. The study did however confirm the hypothesis that food intolerances are a possible cause of ADHD and suggest there may be a food-related sub-type of ADHD. Consequently, they noted value in the 'few foods diet' (an elimination programme) - though this should only be administered and overseen by a qualified dietitian.

NICE (2019) advises individuals should eliminate certain food or drinks which cause a clear influence on an individual's hyperactive behaviour. Implementing a food diary to evaluate if there is an association between certain foods and behaviour might be useful. Though, specific dietary elimination should only be undertaken under the supervision of a dietitian to prevent nutritional imbalance.

Overall, it is recommended that adequate nutritional balance can be supported by recommending:

- A regular (such as 3 times per day) intake of foods containing protein
- Reducing ultra processed foods and high sugar foods
- Reducing caffeine content (including from energy drinks)
- Scheduling snacks and portions
- Including fruit and vegetables, and considering how these can be achieved with the most ease
- Considering Omega 3 and zinc/iron/vitamin D supplementation whilst aiming to increase the dietary intake of these over time
- Investigating the potential presence of food intolerances and supporting safe elimination where applicable
- Working on habit acquisition

## Supporting sleep hygiene to improve nutritional intake

ADHD is frequently coincident with sleep difficulties and sleep disorders (*Hvolby et* al., 2014; Wajszilber *et* al, 2018) which will impact quality of life and may helpful nutritional change more difficult.

Incorporating a regular bedtime and medication timings (where applicable) goes a long way towards maintaining set goals. This is particularly true for individuals who may find that they take their medication later than intended or who skip breakfast to accommodate taking medication on time. Supporting sleep hygiene

and daily routines, and accounting for medication challenges is an important co-factor of supporting nutritional change.

The Sleep Charity is an excellent resource with sections for children, teenagers and adults.

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