GLP-1 Treatment for weight loss: Nutritional considerations for prescribing clinicians

1. Purpose & Overview

It is essential that nutritional considerations for individuals prescribed GLP-1 receptor agonists (GLP-1 RAs) such as semaglutide, liraglutide or tirzepatide are understood so that therapeutic outcomes are optimised. GLP-1 RAs reduce appetite, slow gastric emptying and improve glycaemic control. To both maximise benefits and minimise the potential side effects, dietary and lifestyle choices must be sufficiently addressed and some of the key considerations are summarised below.

2. Prevent muscle loss & malnutrition

Eating enough protein is crucial to support muscle health, reduce hunger and maintain metabolism during weight loss.

- Excellent sources of lean protein include: Lean meats (chicken breast, turkey, lean beef, lean pork), fish and seafood, eggs, dairy/dairy alternative products (low fat Greek yogurt, Skyr yogurt, cottage cheese, low fat milk, soya milk, soya yogurt), plant-based options (tofu, tempeh, soya, edamame, lentils, beans, chickpeas), and nuts and seeds (in moderation due to calorie density). A protein source should be encouraged at every meal and snack.
- It is essential that resistance or strength training is encouraged alongside medications to preserve muscle and bone mass.
- At present there is a lack of research, consensus and awareness around malnutrition in obesity and those losing weight rapidly while on GLP-1s[1]. Therefore, monitoring for **sarcopenia and malnutrition**, especially in older adults or those experiencing rapid weight loss is crucial.

3. Manage gastrointestinal side effects.

The most common reported side effects include nausea, diarrhoea, vomiting and constipation[2,3]. Not everyone will have these side effects and the advice to manage if present will need to be tailored to meet individual needs and preferences. Some suggestions are listed below;

- **Reduce Fat:** Fatty foods can slow down stomach emptying further, potentially worsening nausea. Advise leaner cuts of meat, remove skin from poultry, grill, bake, poach or steam foods and include healthy fats in **small** amounts (olive oil, avocado, nuts, oily fish). Advise that the following foods are limited: fried foods, creamy or cheesy sauces and dressings, fatty cuts of meat, processed meats (sausages, bacon, corned beef), pastry products, crisps and savoury snacks.
- **Reduce Spice:** Spicy foods can irritate the digestive system in some individuals, causing nausea or a stomach upset. Advise to start with bland, easily digestible foods and gradually reintroduce mild spices as tolerated.
- Avoid or reduce alcohol
- **To help with nausea the following can be advised;** as well as avoiding fatty and spicy foods, limit intake of sugary foods and drinks, eat slowly and stop as

soon as you start to feel full, choose cold foods if experiencing nausea (cooking smells can make symptoms worse) and eat regular smaller meals.

- **To help with reflux;** eat slowly and sit upright, avoid fizzy drinks, choose decaffeinated drinks and avoid lying down or bending after eating.
- **To help with sulphur burps**: avoid fizzy drinks, choose decaffeinated drinks, keep portions sizes small and if necessary, a food and symptom diary to identify triggers may be helpful. Stay well hydrated (8-10 glasses of fluid per day) and include fibre to manage constipation/diarrhoea if present.
- **To help with diarrhoea**; encourage fluid intake to replace any loss, increase fibre slowly, avoid sugary foods and drinks, choose decaffeinated drinks and avoid certain types of artificial sweeteners.
- **To help with constipation**; increase fibre and fluid intake, keep as active as possible and consider laxatives if necessary.

4. Prevent micronutrient deficiency.

Ensuring baseline blood tests are carried out as per *BSW Tirzepatide (Mounjaro®) for the management of obesity Locally Commissioned Service*, and any deficiency corrected as appropriate, is essential.

It is the significant reduction in appetite and energy intake (calorie reduction of 16-39%) as a result of GLP-1s which can lead to insufficient intake of essential vitamins and minerals[4].

- Encouraging individuals to follow the healthy food plate model to structure meals will support micronutrient requirements are met. The plate should be split into the following proportions.
    - **50% Vegetables:** Choose a variety of colourful vegetables like leafy greens, broccoli, peppers, carrots and courgettes. These are low in calories and high in vitamins, minerals and fibre.
    - **25% Lean Protein**: Dedicate a quarter of your plate to a source of lean protein.
    - **25% High- Fibre/Complex Carbohydrates**: The remaining quarter of your plate should consist of complex carbohydrates like whole grains (brown rice, quinoa, whole wheat pasta), starchy vegetables (potatoes/sweet potatoes), or beans, pulses or lentils. These provide sustained energy and fibre.
- **Individuals should be advised to purchase an over the counter, one a day A-Z multivitamin and mineral supplement.**

5. Physical Activity

Regular physical activity is an important part of weight management and overall health and individuals should be advised to aim for:

- **At least 150 minutes of moderate aerobic activity** (like brisk walking, swimming, cycling) per week

  PLUS

- **Strength or resistance training at least twice a week** targeting major muscle groups.

6. **Other lifestyle/behavioural considerations:**
   - **Mindful Eating**: GLP-1 RAs work partly by enhancing the body's natural fullness signals, often sooner than individuals would have been used to. Individuals should be reminded to pay attention to their body's hunger and fullness cues.
   - **Meal planning** supports healthier choices by avoiding implusive unhealthy eating
   - **Tracking** intake with a food diary or app to track meals and progress can support healthier choices
   - **Managing stress and emotions** is essential and finding practical ways to cope with stress and emotions such as exercise, hobbies, talking to friends or reading a book or magazine such be explored.
   - **Sleep** plays a vital role in weight regulation and overall well-being. Poor sleep can: increase hunger hormones, reduce ability to make healthy food choices as well as result in lower motivation to exercise. Some tips for better sleep include; establish a sleep schedule, create a relaxing bedtime routine, ensure sleep environment is dark, quiet and cool, limit caffeine, alcohol and consider screen time.
   - Individuals should be reminded to **seek support** from their health-care team for guidance and encouragement.

PLEASE REMEMBER: This information for clinicians is a general guide but an individualised approach that is personalised for specific needs is essential.

References:

1. Fallows, E., 2025. Malnutrition with use of GLP-1 agonists is an underestimated real-world harm. *The BMJ,* online editorial. doi: 10.1136/bmj.r1512.
2. Mozaffarian, D., Agarwal, M., Aggarwal, M., Alexander, L., Apovian, C.M., Bindlish, S., Bonnet, J., Butsch, W.S., Christensen, S., Gianos, E., Gulati, M., Gupta, A., Horn, D., Kane, R.M., Saluja, J., Sannidhi, D., Stanford, F.C., Cody, F., and Callahan, E.A., 2025. Nutritional priorities to support GLP-1 therapy for obesity: A joint advisory from the American College of Lifestyle Medicine, the American Society for Nutrition, the Obesity Medicine Association and the Obesity Society. *American Journal of Lifestyle Medicine*.
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4. Christensen, S., Robinson, K., Thomas, S., and Williams, D.R., 2024. Dietary intake by patients taking GLP-1 and dual GIP/GLP-1 receptor agonists: A narrative review and discussion of research needs. *Obesity Pillars*, [online] September. Available at: <https://doi.org/10.1016/j.obpill.2024.100121> [Accessed 4 November 2025]

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