

Diet and Polio Factsheet

Introduction

Evidence shows that losing weight can help reduce symptoms of the late effects of polio (LEoP) and post-polio syndrome (PPS), particularly if you're overweight. Carrying extra weight puts added strain on already weakened muscles, which can worsen symptoms.

Being overweight can also contribute to breathing difficulties, such as shortness of breath and sleep apnoea, common symptoms in people with PPS.

However, healthy eating isn't one-size-fits-all. The most effective approach is to focus on a balanced, nutritious diet rather than relying on fad diets or quick fixes. The goal is to support your overall health and well-being, not just weight loss.

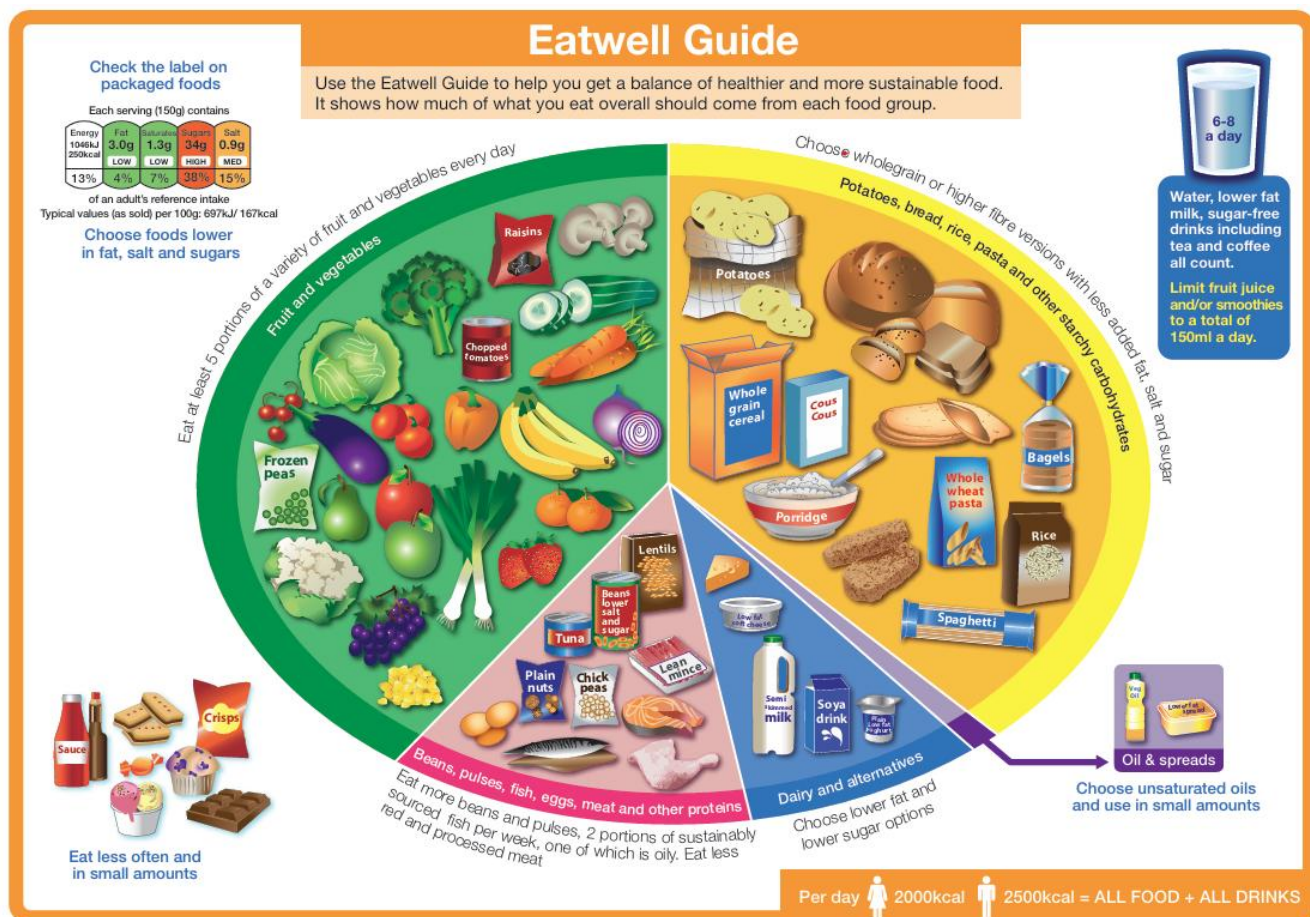
Even if you're not very active, your body still needs fuel to function, just like a car needs the right fuel to run properly. A good diet helps to:

- Manage your weight whether you're trying to lose, maintain, or gain.
- Keep energy levels steady - some foods release energy slowly, which can help with fatigue.
- Support your immune system, helping to fight off infections.
- Improve recovery – This is especially important if you're unwell or have been in the hospital.
- Enhance wound healing - Nutrients play a key role here.
- Promote good digestion by having enough fluid and fibre.
- Support bone and joint health through calcium and vitamin D.
- A healthy diet can also help lower your risk of conditions such as diabetes and heart disease.

Food should be enjoyable and eating well doesn't mean giving up the pleasure of food.

Balance your plate: What does a healthy meal look like?

A healthy, balanced plate includes a variety of foods from different groups. It's not about cutting things out, it's about getting the right balance.



Here's a simple breakdown:

1. Carbohydrates (starchy foods) – about 1/3 of your plate

- Examples: bread, pasta, rice, potatoes, oats.
- Choose high-fibre, wholegrain options (e.g. brown rice, wholemeal bread).
- These are your main energy source, great for managing fatigue.
- They help keep you full and support steady blood sugar levels.
- Low in calories by themselves - it's the added fats such as butter or oil that increases calories. BUT eating large amounts of carbohydrates can lead to weight gain.

2. Fruit and vegetables – another 1/3 of your plate

- Packed with vitamins, minerals, fibre, and antioxidants.
- Help with digestion, wound healing, and fighting illness.
- Low in calories and fat but keep you full.
- Aim for at least 5 servings per day.

3. Protein (meat, fish, and alternatives) – smaller portion

- Includes lean meat, fish, eggs, beans, lentils, tofu, and dahl.
- Supports muscle repair, immune function, and healing.
- Choose lean cuts and limit added fats (e.g. skin, frying oils).

4. Milk and dairy (or alternatives) – 2 to 3 portions per day

- Good sources of calcium and protein, important for bones and teeth.
- Low-fat options are usually best.
- Check labels for sugar content in yogurts and milk alternatives. Choose plain yoghurt to avoid added sugar.

5. Foods high in fat and sugar – just a small amount

- Includes sweets, biscuits, fried foods, and takeaways.
- These are high in calories, sugar, and unhealthy fats.
- Fine occasionally but not something to have daily.

Other essentials:

- **Fibre:** Supports digestion, keeps you full, balances blood sugar. Found in fruit, vegetables, and wholegrain carbohydrates.
- **Multivitamins and minerals if your diet is limited in variety:** Help with energy, immunity, healing, and more.
- **Fluids:** Stay hydrated, aim for six to eight glasses of water a day.

A healthy plate means a mix of energy, nutrients, and fibre, with most of it coming from plants and whole grains, some lean protein and dairy, and just a little of the high fat/sugar foods.

Understanding weight and energy balance

When we eat, our bodies break food down into calories (energy). Different nutrients provide different amounts:

- **Carbohydrates & protein** = 4 calories per gram
- **Fat** = 9 calories per gram
- **Alcohol** = 7 calories per gram

Energy in verses energy out

- If you eat more energy (calories) than your body uses → you gain weight.
- If you eat less energy than your body uses → you lose weight.
- If you eat about the same as your body uses → your weight stays stable.

Even when you're not physically active, your body still uses energy for things like keeping your heart beating, body temperature stable, and organs working. This is your basic energy need.

To lose weight, you need to:

- Reduce your calorie intake,
- Increase your activity, or
- Ideally, a combination of both.

What if you have limited mobility?

For polio survivors who use wheelchairs or have reduced mobility, it can be harder to lose weight. That's because your body uses less energy. However, the same principles still apply.

Small, realistic changes to food choices and habits can make a big difference, even with lower energy needs.

What about BMI?

BMI (Body Mass Index) is a basic screening tool that compares your weight to height and may be useful in people with PPS. However, it has limitations, particularly where muscle wasting or altered body composition is present. Assessment should therefore consider the whole picture, including body composition (such as fat mass and lean tissue), functional status, and overall health, using additional measures where appropriate, when evaluating nutritional status.

Safe and healthy weight loss

- For people with PPS, any weight loss should be slow and carefully managed to protect muscle strength.
- Avoid rapid weight loss as this can lead to muscle loss, rather than just fat. Support from a dietitian can help ensure nutritional needs are still met.
- Because people with PPS may already have lower energy and protein needs, so cutting calories should be done carefully and with professional support.
- A dietitian can help you:
 - Review and track your current food intake, including energy, protein, vitamins, and minerals.
 - Suggest small, realistic calorie reductions tailored to your individual needs.
 - Ensure your intake/diet is balanced and complete in essential nutrients, to avoid deficiencies.
 - Protect muscle mass by ensuring adequate protein intake.
 - Build long-term healthy habits, not quick fixes.

Even if your mobility is limited, there's always something that can be done to improve your weight and health. Slow, steady, and realistic changes are the best approach.

How many calories do we need?

Government guidelines recommend that an average man needs about **2,500 calories** a day and a woman of about **2,000 calories** to maintain weight, **but for most people** with LEP and PPS, especially those with limited mobility, this is much too high. Discuss a healthy, safe aim with your dietitian or medical professional.

Fat: What you need to know

Fat has 9 calories per gram, which is more than carbohydrates or protein. Eating too much fat can lead to weight gain because there are more calories in a smaller portion of food. It's important to watch where your fats come from and try to choose healthier options.

High fat versus lower fat examples

Food	Fat per 100g (approx.)
Mayonnaise (regular)	79g
Mayonnaise (low-fat)	30g
Butter (regular)	100g
Butter (low-fat)	38g
Cheese (hard)	35g
Cheese (soft/low-fat)	15g

Tips for choosing fats

- Opt for low-fat dairy like semi-skimmed or skimmed milk.
- Pick lean meats and skinless poultry.
- Choose plain fish or meat instead of battered, breaded, or processed.
- Limit processed meats like sausages and pâté.
- Always read labels and aim for fats under 3 grams per 100 grams when possible.
- Use low fat cooking methods, including boiling, steaming, stir frying and baking.

Making small changes like these can cut down your calorie intake without losing flavour or enjoyment.

Sugar: What you need to know

All sugars, such as glucose, honey, and syrup, give you 4 calories per gram (less than the 9 calories per gram of fat). Eating or drinking too much sugar can affect your weight, mood, and energy levels.

Quick-release sugar versus slow-release sugar

- **Simple sugars** (e.g. sweets and chocolate) break down fast, giving you a quick energy boost followed by a crash.
- **Complex carbohydrates** (e.g. whole grains, rice, and some breads such as sourdough, granary and wholemeal) break down slowly, giving you steady energy.

That's why slow-release carbs are better to manage fatigue and keep energy levels steady.

Tips to cut down on sugar

- Gradually reduce how much sugar you eat, your taste buds will adjust!
- Use natural sweetness from things like dried fruit, lemon, or spices. Just be mindful that dried fruit is high in sugar if eaten in large amounts.
- Choose sugar-free or low-sugar drinks instead of sugary sodas or sports drinks (some sports drinks dehydrate you).
- Look for foods with less than 5 grams of sugar per 100 grams.
- Try halving sugar in recipes, often it still tastes good.
- Limit sweets, chocolates, and biscuits, there's no need to cut them out completely, just enjoy less often.

It's all about balance and making small, sustainable changes.

Sugar content in common foods and drinks

Here's a quick look at how much sugar is in some everyday items:

- **Regular Coke:** 35g sugar per 330ml can (about 7 teaspoons)
- **Diet Coke:** 0g sugar
- **Ribena (regular):** 35g sugar per carton (7 teaspoons)
- **Ribena (reduced sugar):** 1.3g sugar per carton
- **Orange juice:** Approx 11g sugar per 100ml (105g per litre)
- **Low sugar squash:** Approx 1.8g sugar or less per 100ml
- **Crunchy Nut Cornflakes:** 10g sugar per 30g bowl
- **Porridge (Quaker oats):** No added sugar in the 'Original' variety. Contains slow-release carbs, a good breakfast choice. Be mindful of fruit- or Golden syrup-flavoured varieties which may contain added sugars.
- **Chocolate digestives:** 5g sugar per biscuit
- **No sugar biscuits:** 1.7g sugar per biscuit

Knowing this helps you make better choices for managing sugar intake and energy levels.

Alcohol: What you need to know

Alcohol contains 7 calories per gram, almost as much as fat. That means it can add a lot of extra calories without you realising it.

Too much alcohol can:

- Raise blood pressure.
- Increase triglycerides (a type of cholesterol linked to heart disease).
- Contribute to weight gain and liver damage.

Safe drinking guidelines

- Limit to 14 units per week for both men and women.
- Spread drinks out over the week, don't save them all for one night.
- Have several alcohol-free days each week.

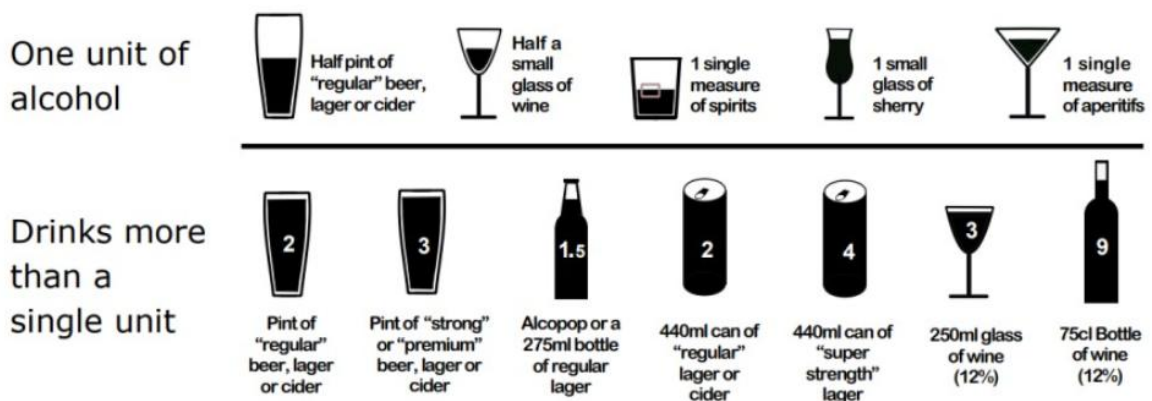
What is one unit?

- Half a pint of beer or cider (standard strength).
- 125ml glass of wine (small).
- 1 single shot of spirits (25ml).
- 1 small glass of sherry or aperitif.

Women generally process alcohol more slowly than men, so the effects can be stronger even with the same amount.

If you're trying to lose weight or manage your health, cutting down on alcohol is a quick win.

Alcohol unit reference



<https://www.gov.uk/government/publications/delivering-better-oral-health-an-evidence-based-toolkit-for-prevention/chapter-12-alcohol>

Calories in versus calories out

It's much easier to eat calories than to burn them off. The information below helps show the difference.

Quick calories in (approximate amounts):

- **Croissant:** 335 kcal
- **Fruit scone:** 314 kcal
- **Cappuccino:** 116 kcal
- **Glass of wine (250ml):** 200 kcal
- **Glass of champagne:** 86 kcal
- **Chicken & mayo sandwich:** 522 kcal
- **Blueberry muffin:** 448 kcal
- **Smoothies:** Often high in sugar and don't keep you full for long

Calories burned (approx. for 30 minutes):

- **Swimming (moderate):** 279 kcal
- **Cycling (moderate):** 279 kcal
- **Walking (medium pace):** 175 kcal
- **Walking the dog:** 125 kcal
- **Standing while on a phone call:** 20 kcal

You can easily eat 500+ calories in 5–10 minutes, but it takes 30–60 minutes of activity to burn even half of that. So, when it comes to managing weight, what you eat matters just as much, if not more, than how active you are.

Vitamin and mineral supplements: What you should know

Calcium & Vitamin D

- Essential for strong bones.
- Recommended daily intake:
 - Calcium: 700–1200 mg/day
 - Vitamin D: 10 micrograms/day
- Calcium sources: milk, cheese, yogurt, tofu, sardines (with bones), broccoli.
- Vitamin D sources: sunlight, eggs, meat, fortified cereals, milk.

- It's important to get enough vitamin D. In the UK, there is very little or no sunlight strong enough to make vitamin D in the skin between October and March, so most people are advised to take a daily supplement during these months. During spring and summer (roughly late March to September), vitamin D can be made from sunlight. Short periods of sun exposure of around 10 to 15 minutes, with the face and forearms uncovered are usually enough for people with lighter skin, provided care is taken not to burn. People with darker skin need longer sun exposure to make the same amount of vitamin D. A daily supplement, dose as stated above, is recommended during autumn and winter; and people with darker skin, limited sun exposure, or who are mostly indoors may need to take this all year round.

Ask your GP for yearly checks, especially if you're at risk of bone issues.

Multivitamins versus individual supplements

- A general multivitamin and mineral may be beneficial if your diet is limited in variety.
- Individual supplements (e.g. high-dose vitamin A, D, E, K) can be harmful. These should only be taken if prescribed.
- High doses of certain vitamins have been linked to serious side effects, including increased risk of some cancers.
- Some supplements can also interact with your medications, so always check with your GP or pharmacist first.

What is not recommended:

- **L-Carnitine** and **Coenzyme Q10**: Once used for post-polio fatigue, but studies showed no benefit over placebo and are associated with some side effects (e.g. insomnia, allergic reactions).
- **Pyridostigmine**: No solid evidence and can have unwanted side effects.
- **Magnesium supplements**: Best to get this from food such as leafy greens; supplements offer little extra benefit unless you're deficient.

It is best to stick to food first for nutrients. A balanced diet usually provides everything you need. If you are unsure, take one basic multivitamin per day, but avoid high-dose individual supplements unless prescribed. Supplements are often expensive and not always effective.

Food and mood

What we eat can have a big impact on how we feel, physically, mentally, and emotionally.

Why a balanced diet helps your mood

- Your brain needs a steady supply of energy to function well, mainly from carbohydrates.
- Eating regular meals and slow-releasing (complex) carbs (e.g. oats, wholegrain bread, brown rice) helps keep your energy stable and mood balanced.
- Skipping meals or eating lots of sugar can lead to mood swings, irritability, or fatigue.

Healthy fats = Healthy brain

Your brain also needs healthy fats for structure and function. Choose monounsaturated fats such as olive oil, rapeseed oil or avocados, nuts, and seeds. Try to avoid trans fats and processed foods like cakes, biscuits, and fried snacks as these can negatively affect your health.

Oily fish = Mood boost

Aim for two portions of oily fish per week (e.g. salmon, mackerel, sardines). Rich in omega-3 fatty acids, which may help reduce depression symptoms and support brain health.

Key nutrients for mental health

- **Protein** at each meal helps build brain chemicals like serotonin. Good sources include chicken, eggs, beans, tofu, lentils, fish.
- **Vitamins and minerals** (from fruit, vegetables, nuts, and seeds) support brain and body function.
- **Fibre** (from wholegrains, pulses, and vegetables) helps with digestion and gut health, which is also linked to mood.
- **Water:** Staying hydrated is key. Aim for pale straw-coloured urine as a simple guide.

Caffeine, sugar, and alcohol

- **Caffeine** (in tea, coffee, energy drinks) can affect sleep and mood. Try to cut back if you're feeling anxious or irritable.
- **Sugary foods/drinks** give a short burst of energy but often lead to a crash, leaving you feeling tired or low.
- **Alcohol** is a depressant. Too much can lower your mood, disrupt sleep, lead to B vitamin deficiencies, and affect relationships and routines. Stick to 14 units per week max and spread them out.

It is recommended that polio survivors eat regular meals with slow-release carbs and protein to keep your energy and mood steady. Include fruit or protein-based snacks (like a banana, yogurt, or a few nuts) between meals to avoid dips in energy. If you're constipated or tired, check your water intake first, it's a common issue. Make small, lasting changes to your diet - quick fixes don't work long term.

When to seek help

If you're gaining or losing weight without trying, speak to your GP or dietitian. Medications can affect weight and appetite, so don't ignore changes. Unplanned weight loss could be a sign of malnutrition.

Fad diets: Why they don't work (and can be harmful)

Fad diets are everywhere, promising fast weight loss, often endorsed by celebrities or influencers. But while they may sound tempting, they're often unbalanced, unsafe, and don't work long term.

They often promise quick results (e.g. losing 5 pounds in a week), tell you to cut out whole food groups (e.g. carbs, dairy, meat), use ‘magic’ foods or drinks (e.g. grapefruit, green juices, detox teas), recommend very low-calorie eating or come with expensive supplements.

These types of diets may cause rapid weight loss at first, but that’s usually just water loss, not fat. Once you return to normal eating, the weight tends to come back, sometimes even more than before.

5 big reasons to avoid fad diets

1. They can make you ill: Crash diets often lack vital nutrients. You might feel tired, dizzy, constipated, or even unwell. Over time, they can lead to serious health problems.

2. Cutting out food groups is risky: Diets that remove entire food groups (like carbs, dairy, or meat) can cause nutritional deficiencies. Your body needs a balance of nutrients to work properly.

3. Low-carb/high-fat diets come with side effects: Low-carb diets like Atkins or keto can cause: bad breath, headaches, constipation, or fatigue. They often allow high levels of saturated fat, which may raise cholesterol and risk of heart disease. The brain needs around 120g of carbohydrates per day, it can’t run on fat or protein alone.

4. Detox diets are a myth: There’s no scientific evidence that detox diets remove toxins — your liver and kidneys do this naturally. These diets usually just restrict calories, which is why they cause temporary weight loss.

5. They’re unrealistic and unsustainable: Cabbage soup, blood type diets, and 5:2 fasting may sound interesting, but they’re hard to stick to and often based on pseudoscience or no real evidence. These diets can lead to yo-yo dieting, muscle loss, and worse mental and physical health over time.

Other concerns

- **Muscle loss:** Quick weight loss often includes loss of lean muscle, not just fat.
- **Supplements and detox teas:** Expensive, unnecessary, and sometimes harmful.
- **Colonic irrigation:** Not recommended — can cause more harm than good.
- **Nutrition advice:** Be cautious of anyone selling products or giving advice without proper medical training or working as a Registered Dietitian.

What does work

- Make small, realistic changes that you can maintain.
- Focus on a balanced, varied diet based on the Eatwell Guide.
- Look at your habits, not just your weight.
- Get support from a registered dietitian as they are trained and qualified to give evidence-based advice. Unregulated nutritionists are not qualified to provide dietary advice for people living with chronic health conditions.

There’s no magic bullet. Sustainable weight loss and good health come from balanced eating, regular activity, and consistency over time, not quick fixes.

GLP-1 medications (e.g. Ozempic, Wegovy): What you need to know

You've probably heard a lot about Ozempic and other similar drugs in the media lately. These belong to a group of medications called GLP-1 receptor agonists, and while they were originally developed to manage type 2 diabetes, they are now being used for weight loss in people without diabetes as well.

What is GLP-1?

GLP-1 (glucagon-like peptide-1) is a natural hormone your body releases when you eat. It helps to:

- Slow down how quickly your stomach empties.
- Increase the amount of insulin your body releases (which helps control blood sugar).
- Reduce your appetite by acting on the brain.

GLP-1 medications mimic this hormone to support weight loss and blood sugar control. These medications are given as a once-weekly injection into the abdomen, thigh, or upper arm. Examples include Ozempic (semaglutide) and Wegovy (a higher-dose version of semaglutide for weight loss).

GLP-1 drugs help you lose weight by making you feel fuller for longer, reducing your appetite, helping regulate blood sugar and insulin spikes, which are linked to fat storage, and by slowing down digestion. However, they only work well if you also make changes to your diet and lifestyle.

Side effects and risks

Like any medication, GLP-1s can cause side effects, especially in people with existing health issues. Possible side effects include nausea, vomiting, constipation, abdominal discomfort or pain, muscle loss (due to rapid weight loss), risk of gallbladder issues or pancreatitis, and aesthetic side effects: "Ozempic face" i.e. sagging or aged facial appearance due to fast weight loss.

People with mobility issues (e.g., post-polio syndrome) may already have slower digestion, so this could worsen symptoms.

Do not buy these drugs online or from unofficial sources. They should be prescribed and monitored by qualified health professionals.

Who should use these drugs?

These medications should only be used:

- Under medical supervision.
- Within a specialist weight management service.
- If lifestyle changes alone haven't worked, and you're at risk of other health conditions due to your weight.

You should be monitored by a multidisciplinary team (doctor, dietitian, etc.), who will also help support healthy eating and behaviour change.

Important considerations

- They are not a long-term solution on their own — many people regain weight after stopping the drug.
- To maintain weight loss, you must continue with healthy eating habits and regular activity.
- Some people experience difficulties related to regaining weight after significant weight loss, which can also have health and emotional impacts.

GLP-1 Medication Summary

Feature	GLP-1 Medications (Ozempic, Wegovy)
Purpose	Originally for type 2 diabetes, now also used for weight loss
How it works	Reduces appetite, slows digestion, regulates blood sugar
Taken as	Weekly injection
Side effects	Nausea, vomiting, constipation, muscle loss, possible facial changes
Should be used by	People with medical need, under specialist supervision
Not recommended	Buying online, using without support, ignoring side effects
Long-term effectiveness	Requires sustained lifestyle changes to maintain weight loss

Nutritional issues in Post-Polio Syndrome

While most people with PPS manage eating well with some dietary adjustments, a small number may experience more serious complications that require closer attention and support.

Common issues to be aware of:

- 1. Chewing Fatigue** – loss of muscle strength around the jaw and face. This can lead to tiredness when chewing and result in eating less and weight loss over time. Softer foods and energy-dense meals should be considered.
- 2. Swallowing difficulties (Dysphagia)** - weakness of the muscles involved in swallowing may cause choking, coughing during meals and/or a longer time taken to eat. Softer foods and purees may help.
- 3. Extended mealtimes** - eating can become exhausting or time-consuming and may lead to malnutrition or under-eating if not managed well.
- 4. Advanced support: NG or PEG feeding** - in very rare and severe cases of malnutrition, temporary feeding support (a nasogastric (NG) feeding tube) or longer-term support (a percutaneous endoscopic gastrostomy (PEG) tube placed into the stomach) may be necessary.

If any of the above issues arise, it's important to flag them early. Speak with your GP, dietitian, or speech and language therapist (SLT). They may consider regular monitoring or a referral for a swallowing assessment.

Medical disclaimer

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Date: 5 May 2026