GUIDE 05

IRON: FUELLED, NOT DRAINED

Iron, under-fuelling and the difference between training hard and running on empty.

Persistent exhaustion is not a badge of commitment. It is a reason to pause, investigate and get support.

Practical examples. Clear boundaries. Space for your experience.
General adult education, not diagnosis or medical clearance.

Two different problems

Low iron / iron-deficiency anaemia [1]

Iron is needed for normal oxygen transport. Low iron stores and iron-deficiency anaemia are related but are not identical. Symptoms such as fatigue and breathlessness need assessment; symptoms alone cannot identify the cause.

Low energy availability and REDs [2]

Low energy availability means too little dietary energy remains after exercise to support normal body functions. Prolonged or severe under-fuelling can contribute to Relative Energy Deficiency in Sport (REDs), affecting health and performance. It can happen accidentally and at any body size.

They can overlap

Someone can have low iron, under-fuelling, both or neither. Poor sleep, illness, thyroid conditions and many other issues can also cause fatigue. Do not diagnose yourself from a checklist.

Your starting rule

When energy or performance stays unusually low, do not automatically add training, cut food or buy supplements. Arrange appropriate healthcare advice.

Notice the pattern early

Useful clues, not a diagnosis [2]

Persistent poor recovery, declining performance, frequent illness, bone stress injuries or unexplained menstrual changes can raise concern about under-fuelling. A regular bleed on hormonal contraception does not prove energy intake is adequate.

Iron-related symptoms [1]

Tiredness, palpitations, headaches and unusual breathlessness can occur with anaemia. Heavy menstrual bleeding or other blood loss can contribute. Book a GP appointment if you suspect a problem.

Urgent symptoms

Chest pain, severe breathlessness, collapse or heavy bleeding with faintness needs urgent help. Call 999 for a life-threatening emergency. Black tarry stools or unexplained blood in stools also needs prompt medical advice; do not assume food explains it.

Stop impact for suspected bone injury

Focal bone pain, especially pain with walking, hopping or at rest, deserves assessment. Do not keep running to test it.

Close the obvious food gaps

A bridge, not a treatment plan

While arranging assessment, avoid deliberate restriction and missed meals. Suspected REDs needs clinician-led care, often with a sports dietitian and adjusted training. A snack alone may not be enough; sometimes training must stop.

Map tomorrow first

Write down when you wake, train, work and eat. Circle any training session that follows a long gap without food, and any recovery period where a meal is unlikely.

Add a practical bridge

Before morning training: toast or a banana if tolerated. Afterwards: breakfast with carbohydrate and protein. Before an evening session: a sandwich or yoghurt with cereal if lunch was hours ago. These examples are flexible; larger training loads may need considerably more food.

Keep rest days nourished

Recovery continues on non-training days. Do not remove meals because you did not exercise. Hunger cues can be unreliable when schedules are busy; planned eating can help.

Put iron-rich foods on the menu

Useful sources [1]

Meat, pulses and iron-fortified cereals or bread can help supply iron. Vegetarian choices can be part of a suitable diet. Food alone may not correct a diagnosed deficiency; follow the treatment and monitoring plan.

Three meal ideas

Breakfast: iron-fortified cereal with milk or fortified soya drink and fruit.
Lunch: lentil soup with bread and peppers.
Dinner: beef-and-bean chilli or a bean-only chilli with rice and tomatoes. These are meal options, not a prescription for a measured iron dose.

Support absorption

Include vitamin-C-rich produce such as peppers, citrus or berries with plant iron foods. If iron is low, ask your clinician about separating tea/coffee from iron-rich meals or tablets. Do not remove whole food groups to optimise one nutrient.

Do not self-prescribe high-dose iron

A clinician should establish the cause and advise dose, timing and follow-up. Iron can cause side effects and interact with medicines. Keep supplements securely away from children.[1]

Build a supported recovery plan

What to bring to the GP

How long fatigue has lasted; training load; changes in eating or weight; bleeding history; menstrual pattern; medication and supplements; any injury or gastrointestinal symptoms. Ask which blood tests and other assessments are appropriate.

Tests are not a DIY scorecard

A clinician may use a full blood count and iron studies such as ferritin, interpreted in context. There is no single ferritin number that every gym member should chase. Do not use an online cut-off to start treatment.

With your coach

Explain the symptoms and clinical advice. Agree whether to reduce intensity, remove impact or pause training. You should not be pushed through a recovery plan designed by someone outside their scope.

With a dietitian

Ask for realistic meals, training fuel and help with food anxiety where relevant. Recovery may require more food and changes to body weight. The aim is health, not the smallest possible intake.

Your seven-day action sheet

Today

Arrange an appointment if symptoms persist or concern you. Seek urgent help for the warning signs on page 3. Tell your coach before the next hard session.

Tomorrow

Plan breakfast, lunch, dinner and the food needed around training. Buy two easy backup meals. For example: eggs on toast and a microwave rice bowl with beans.

For the next week

Briefly note energy, sleep, meals missed, symptoms and training changes. Do not turn this into obsessive food logging. Share observations with your clinician; feeling better does not remove the need to investigate concerning symptoms.

At review

Follow prescribed treatment and testing. Progress training only as advised. If energy stays low, return for review rather than stacking supplements or assuming you lack willpower. Recovery is an active part of becoming stronger.

Sources & how to use this guide

[1] NHS: Iron deficiency anaemia

Open source

[2] Mountjoy et al. (2023). IOC consensus statement on REDs. British Journal of Sports Medicine.

Open source

[3] IOC consensus statement: indexed abstract

Open source

[4] NHS: Vitamins and minerals - iron

Open source

Evidence and practical examples

Sources checked 12 September 2026. Numbered references support the clinical summaries; the meal ideas, checklists and example routines are Neon coaching suggestions, not validated treatment protocols. Advice must be adapted to you.

Using this guide

This guide is general education for adults, not individual medical advice. It has not been independently clinically reviewed; obtain individual advice for symptoms, medical conditions, medicines, pregnancy or disordered eating. Do not change prescribed treatment using this booklet.