

Friedreich's ataxia 🝷

## A guide to nutrition for patients with Friedreich's ataxia

This guide provides practical advice and information to help you make informed choices about your diet and manage your symptoms effectively

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### Introduction

Friedreich's ataxia (FA) is a rare neurodegenerative disorder that can significantly impact your quality of life. While there's no cure, a well-balanced diet can play a crucial role in managing symptoms, maintaining energy levels, and supporting overall health.

This comprehensive guide provides practical advice and information to help you make informed choices about your diet and manage your symptoms effectively. We'll delve into the specific nutritional needs of individuals with FA, offer practical tips for meal planning, and provide strategies for adapting to changing dietary needs as the condition progresses.

By following these guidelines and working closely with your healthcare team, you can optimize your nutrition, enhance your well-being, and live a fulfilling life with FA.

# Understanding Friedreich's ataxia and its impact on nutrition

FA is caused by a defect in a gene called FXN, which leads to a deficiency of a protein called frataxin. Frataxin is essential for the function of mitochondria, the powerhouses of our cells that produce energy. This deficiency affects energy production in cells throughout the body, particularly in the nervous system, heart, and pancreas.

It's important for people with FA to maintain a healthy weight. Making the right food choices can help you better manage FA. Healthy eating can help you maintain a good body weight so that your body can move better. Eating right can also help ease the stress on your joints [1].

The impact of FA on nutrition can vary from person to person. Some common challenges include:

- **Difficulty with swallowing (dysphagia):** This can make it hard to consume certain foods and increase the risk of choking [1].
- Impaired glucose tolerance and diabetes: About 30% of people with FA develop diabetes. FA can damage the pancreas, leading to difficulty regulating blood sugar levels [2].Individuals with FA may have lower insulin sensitivity and higher postprandial insulin secretion, which emphasizes the importance of blood sugar management [3].
- Weight management: FA can affect metabolism and activity levels, making it challenging to maintain a healthy weight [4].
- **Fatigue:** Fatigue is a common symptom of FA, and poor nutrition can exacerbate it [5].

• **Gastrointestinal issues:** Some individuals with FA may experience constipation or other digestive problems [5].

# General dietary guidelines for people with Friedreich's ataxia

While there is no specific "FA diet," the general recommendation is to follow a healthy and balanced eating plan similar to what is recommended for the general population. This includes [2]:

- **Plenty of fruits and vegetables:** Aim for a variety of colorful fruits and vegetables to provide essential vitamins, minerals, and antioxidants [5].
- Whole grains: Choose whole grains over refined grains for more fiber and sustained energy release. Examples of whole grains include brown rice, quinoa, oats, and whole-wheat bread.
- Lean protein: Include lean protein sources such as fish, poultry, beans, and tofu in your diet. Lean protein is important for maintaining muscle mass and strength.
- **Healthy fats:** Opt for healthy fats found in olive oil, avocados, nuts, and seeds. Healthy fats are important for brain health and overall well-being.
- Limited processed foods: Minimize your intake of processed and packaged foods, which are often high in unhealthy fats, added sugars, and sodium.
- **Hydration:** Drink plenty of water throughout the day.
- Limit saturated fats and salt: These can contribute to heart problems, which are a concern for some people with FA [5].
- Avoid tobacco and overindulgence in alcohol: These lifestyle choices can negatively impact your overall health [5].

Historically, a modified diet known as the "Ataxia Diet" was recommended for people with ataxia. This diet emphasized the elimination of refined flour and sugar, the use of complex carbohydrates, and the avoidance of processed meats [7]. While this diet may offer some benefits, it's important to discuss any dietary changes with your healthcare professional.

### Specific nutritional needs for Friedreich's ataxia patients

In addition to the general guidelines, some specific nutritional considerations for people with FA include [5] :

#### Fiber

- Helps with bowel regularity and weight management.
- Food Sources: Fruits, vegetables, whole grains, legumes

#### Antioxidants (Vitamins C and E)

- May help protect cells from damage caused by FA.
- Food Sources: Citrus fruits, berries, leafy greens, nuts

#### Vitamin B12

- Important for nerve health and red blood cell production.
- Food Sources: Fish, eggs, dairy products, fortified cereals

#### Vitamin D3

- Crucial for calcium absorption and bone health.
- Food Sources: Fatty fish, eggs, fortified milk

#### Coenzyme Q10 (CoQ10)

- Plays a role in energy production and may be beneficial for some individuals with FA.
- Food Sources: Organ meats, fatty fish, whole grains

#### Calcium

- Important for nerve, muscle, and bone health.
- Food Sources: Dairy products, leafy greens, fortified plant-based milk

#### Magnesium

- Important for nerve, muscle, and bone health.
- Food Sources: Leafy greens, nuts, seeds, whole grains

It's important to note that many FA patients already use antioxidants, which can be a confounder in clinical trials [8]. While some studies suggest potential benefits of certain supplements like vitamin E, CoQ10, and idebenone, more research is needed. Always discuss any supplements with your healthcare professional before taking them [8].

# Practical advice and meal planning tips for Friedreich's ataxia patients

Here are some practical tips to help you plan your meals and make healthy choices:

- **Prioritize whole, unprocessed foods:** Choose fresh fruits and vegetables, whole grains, lean proteins, and healthy fats over processed and packaged foods [5].
- **Be mindful of portion sizes:** Even healthy foods can contribute to weight gain if consumed in excess [5].
- **Plan your meals and snacks:** This can help you stay on track with your dietary goals and ensure you're getting the nutrients you need [6].
- **Make cooking enjoyable:** Experiment with new recipes and flavors to keep your meals interesting [6].
- **Consider your swallowing ability:** If you have difficulty swallowing, choose foods that are easy to chew and swallow, and modify textures as needed. For example, you can thicken liquids with cornstarch or flour or puree foods [1].
- **Manage blood sugar levels:** If you have diabetes or impaired glucose tolerance, work with your healthcare professional to monitor your blood sugar and adjust your diet accordingly [2].
- Address gastrointestinal issues: If you experience constipation, increase your fiber intake and drink plenty of fluids. If you have other digestive problems, talk to your doctor or a registered dietitian [5].

- **Eat small, frequent meals:** This can help with digestion and energy levels [6].
- **Stay hydrated:** Carry a water bottle with you and sip on it throughout the day [6].
- **Keep a symptom diary:** Keeping track of your symptoms, including any digestive issues or fatigue, can help you identify potential triggers and work with your healthcare team to manage them effectively [10].

#### Sample meal plans and recipes

**Breakfast:** Oatmeal with berries and nuts or spinach, banana, and protein smoothie or scrambled eggs with whole-wheat toast and avocado

**Lunch:** Salad with grilled chicken/chickpeas and whole-grain bread or lentil soup with a whole-grain roll or tuna salad sandwich with mixed greens

**Dinner:** Baked salmon with roasted vegetables or chicken stir-fry with brown rice or turkey meatballs with whole-wheat pasta and marinara

**Snacks:** Apple slices with almond butter, trail mix, Greek yogurt with fruit, hard-boiled eggs, veggie sticks with hummus, cottage cheese with fruit, rice cakes with peanut butter, or almonds

## Importance of working with a healthcare professional

It's crucial to work closely with your healthcare professional, including your primary care physician, neurologist, and a registered dietitian, to develop a personalized nutrition plan that addresses your specific needs and manages any potential complications [11].

FA is a complex disease that affects each person differently, and therefore, care plans should be individualized11. Your healthcare team can provide emotional support and help you connect with resources and support groups [1].They can also:

- **Assess your nutritional status:** They can evaluate your current diet, identify any deficiencies, and recommend appropriate interventions.
- **Monitor your health:** They can monitor your weight, blood sugar levels, and other health indicators to ensure you're staying healthy.
- **Provide personalized advice:** They can offer guidance on food choices, meal planning, and managing any dietary challenges related to FA.
- Address specific concerns: They can help you manage swallowing difficulties, diabetes, or other health issues that may affect your nutrition.
- Recommend supplements: If necessary, they can recommend appropriate vitamin and mineral supplements to address any deficiencies.

### Conclusion

Living with FA presents unique challenges, and nutrition plays a vital role in managing symptoms and improving your overall well-being. By following a healthy and balanced diet, addressing specific nutritional needs, and working closely with your healthcare team, you can take proactive steps to support your health and live a fulfilling life with FA [2].

We understand that navigating nutrition with FA can be overwhelming, but remember that you're not alone. With the right information and support, you can make informed choices that empower you to live a healthier and more fulfilling life.

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