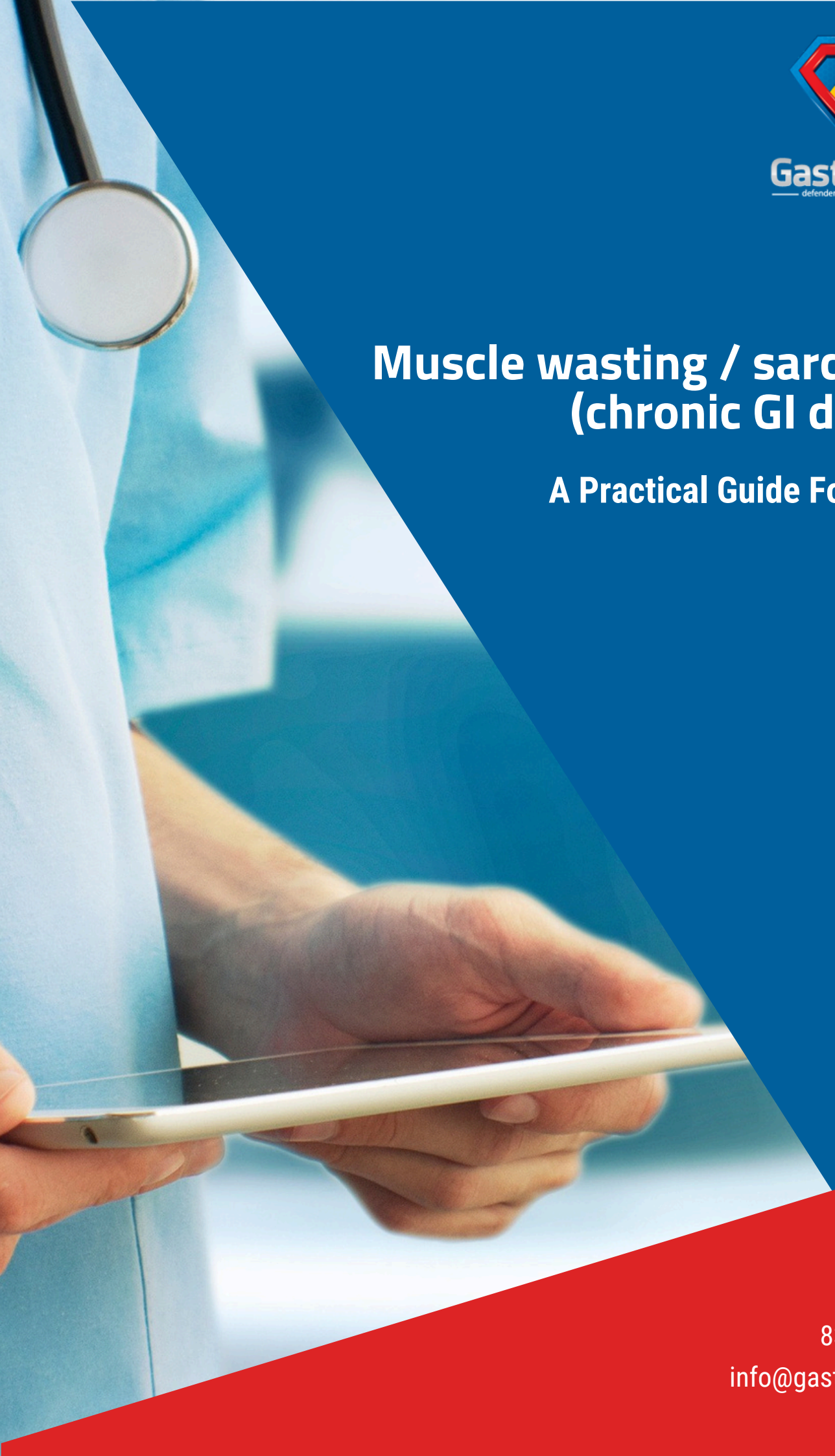


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Muscle wasting / sarcopenia (chronic GI disease)

A Practical Guide For Patients

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Introduction: Muscle wasting / sarcopenia (chronic GI disease)

Muscle wasting refers to a progressive loss of skeletal muscle. Sarcopenia is a muscle disorder characterized primarily by reduced muscle strength, with low muscle quantity or quality used to confirm the diagnosis. Although sarcopenia becomes more common with aging, it can also develop earlier because of chronic disease, poor nutrition, inflammation, or prolonged inactivity.

Chronic gastrointestinal and liver diseases can increase the risk of muscle loss.



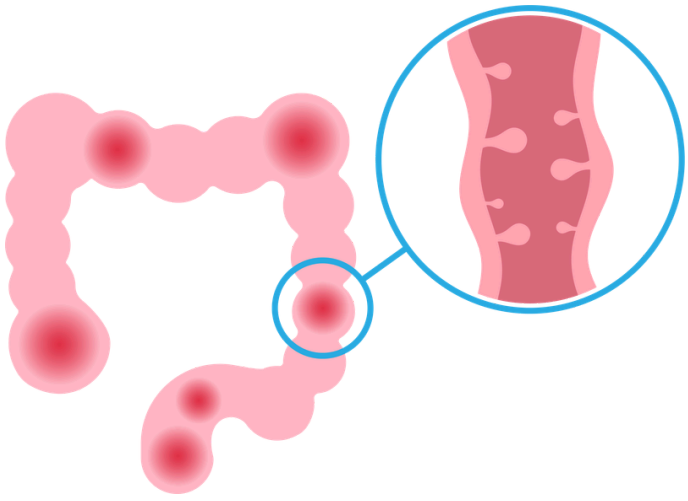
Key Takeaways

- Sarcopenia involves loss of muscle strength and reduced muscle quantity or quality.
- It can occur in younger adults when chronic illness, inflammation, or poor nutrition is present.
- Chronic GI diseases may contribute through reduced intake, malabsorption, inflammation, inactivity, and altered metabolism.
- Inflammatory bowel disease is an important GI condition associated with sarcopenia.
- Chronic liver disease, particularly cirrhosis, can also cause substantial muscle wasting.
- A person can have muscle loss even if body weight or BMI does not appear very low.
- Diagnosis should evaluate strength, muscle quantity, and physical performance, not appearance alone.

What Causes Muscle wasting / sarcopenia (chronic GI disease)

Known Causes

- Inflammatory bowel disease: Crohn's disease and ulcerative colitis can contribute through systemic inflammation, malnutrition, reduced intake, malabsorption, and inactivity.
- Chronic liver disease and cirrhosis: Altered protein metabolism, hyperammonemia, inflammation, hormonal changes, and accelerated fasting can contribute to muscle loss.
- Malabsorption: Conditions that impair nutrient absorption may reduce the availability of protein, calories, vitamins, and minerals needed to maintain muscle.
- Reduced food intake: Pain, nausea, diarrhea, early satiety, restrictive diets, or poor appetite can reduce calorie and protein intake.
- Chronic inflammation: Inflammatory signaling can promote muscle protein breakdown and impair muscle-building pathways.
- Prolonged diarrhea or vomiting: Persistent GI symptoms may contribute to inadequate nutrition and weight loss.

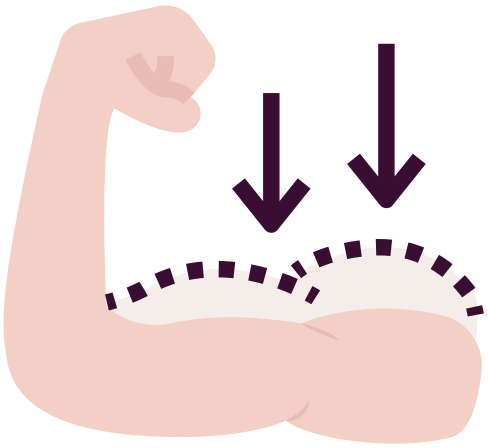


Common Signs & Symptoms

Muscle wasting may develop gradually and can be overlooked when attention is focused on abdominal symptoms or the underlying gastrointestinal disease. Loss of strength and function can sometimes become noticeable before dramatic changes in appearance occur.

Core Symptoms Include:

- Reduced muscle strength
- Visible muscle loss
- Difficulty rising from a chair
- Slower walking
- Difficulty climbing stairs
- Reduced grip strength



Severe cases can also cause:



- Difficulty walking independently
- Recurrent falls
- Difficulty performing normal daily activities
- Significant weakness
- Poor recovery after hospitalization or surgery
- Increased dependence on others
- Severe nutritional depletion

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Diagnosis & Medical Testing

Diagnosing sarcopenia involves more than looking at body weight. Current European consensus emphasizes muscle strength first. Low strength indicates probable sarcopenia, while low muscle quantity or quality confirms the diagnosis. Poor physical performance indicates more severe disease.

Diagnostic Tools

- **Medical history:** Reviews weight change, appetite, dietary intake, GI symptoms, chronic illnesses, medications, and activity level.
- **Nutritional assessment:** Identifies inadequate calorie or protein intake and possible malnutrition.
- **SARC-F questionnaire:** A screening tool that asks about strength, walking assistance, rising from a chair, climbing stairs, and falls.
- **Grip-strength testing:** Helps identify reduced muscle strength.
- **Chair-stand test:** Evaluates lower-body strength and functional ability.



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Diet

Nutrition is a central part of managing muscle wasting because muscle cannot be maintained or rebuilt when calorie and protein intake remain inadequate. However, nutritional recommendations should be individualized to the underlying GI disease, nutritional status, kidney function, liver disease, food tolerance, and degree of malabsorption.

Key Insights

- Eat enough total calories to prevent continued weight and muscle loss.
- Include an appropriate protein source throughout the day.
- Choose protein-rich foods that are tolerated by the underlying GI condition.
- Use smaller, more frequent meals when large meals are difficult to tolerate.
- Avoid unnecessary prolonged fasting.
- Consider a late-evening snack in selected patients with cirrhosis when recommended by the care team.
- Address nausea, diarrhea, abdominal pain, early satiety, or swallowing problems that limit food intake.
- Correct documented vitamin or mineral deficiencies.
- Monitor vitamin D and other nutrients when clinically appropriate.
- Use oral nutritional supplements when normal food intake is insufficient.

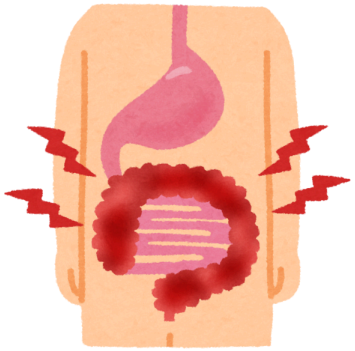
Medications & Treatment Options

There is no single medication that universally reverses sarcopenia. Management generally requires treating the underlying gastrointestinal disease, improving nutrition, and progressively rebuilding muscle strength.

Treatment Options

- **Treatment of the underlying GI disease:** Better control of Crohn's disease, ulcerative colitis, celiac disease, chronic liver disease, or another condition may reduce factors driving muscle loss.
- **Nutrition therapy:** Adequate calories and protein are fundamental.
- **Oral nutritional supplements:** May be recommended when food alone does not meet nutritional needs.
- **Vitamin and mineral replacement:** Used when specific deficiencies are documented.
- **Treatment of anemia:** May improve fatigue and exercise tolerance when anemia is present.
- **Management of diarrhea or malabsorption:** Helps improve nutritional intake and absorption.



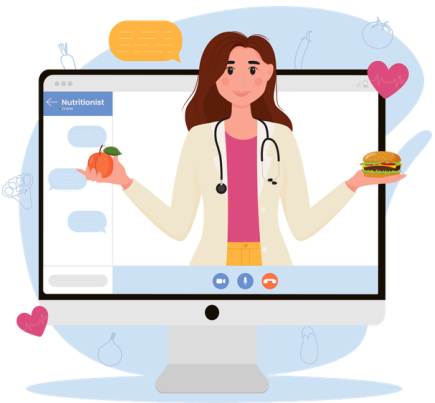


Advanced Therapies & Procedures

Advanced management is generally required when muscle wasting accompanies significant malnutrition, severe chronic disease, inability to eat adequately, recurrent hospitalization, or major functional decline.

Therapy Options

- **Registered dietitian consultation:** Creates an individualized calorie, protein, and micronutrient plan.
- **Physical therapy:** Helps rebuild mobility, balance, and functional strength.
- **Progressive resistance exercise:** Stimulates muscle strength and is a major component of sarcopenia management when medically safe.
- **Aerobic exercise:** Can complement resistance training and improve endurance.
- **Combined nutrition and exercise therapy:** Often provides greater benefit than either strategy alone.
- **Oral nutritional supplementation:** Used when dietary intake is insufficient.



Coping With Muscle wasting / sarcopenia (chronic GI disease)

Muscle loss can affect more than appearance. It may influence work, mobility, confidence, independence, and the ability to recover from a flare of chronic GI disease.

Because loss of strength can develop gradually, keeping track of function is often as useful as watching body weight.

Practical Strategies

- Track unintentional weight changes.
- Pay attention to changes in arm or leg muscle size.
- Note whether standing from a chair is becoming harder.
- Monitor difficulty climbing stairs.
- Track walking speed and endurance.
- Tell your clinician about new falls or balance problems.
- Eat regular meals rather than repeatedly skipping food.
- Include appropriate protein sources throughout the day.
- Use prescribed nutritional supplements consistently.
- Work with a dietitian if chronic GI symptoms restrict food choices.
- Stay physically active within medically safe limits.
- Include resistance or strengthening exercises when cleared by your healthcare team.
- Increase activity gradually after hospitalization or a disease flare.
- Keep chronic GI or liver disease follow-up appointments.
- Report worsening diarrhea, vomiting, abdominal pain, or poor appetite that interferes with nutrition.

FAQS About

Muscle wasting / sarcopenia (chronic GI disease)



Q1: Can chronic gastrointestinal disease cause muscle wasting?
A: Yes. Chronic gastrointestinal diseases can contribute through a combination of inflammation, reduced food intake, malabsorption, physical inactivity, medication effects, and altered metabolism.

Q2: Can someone have sarcopenia without being very thin?
A: Yes. Sarcopenia concerns muscle strength and muscle quantity or quality rather than body weight alone. A person may therefore have low muscle mass or strength even when BMI does not appear low or when excess body fat is present.

Q3: How is sarcopenia diagnosed?
A: Low strength suggests probable sarcopenia, while demonstrating low muscle quantity or quality confirms the diagnosis. Grip strength, chair stands, DXA, bioimpedance, CT, MRI, and walking-performance tests may be used depending on the situation.

Q4: Can muscle wasting improve?
A: Improvement is possible in many patients, particularly when reversible causes such as inadequate nutrition, uncontrolled inflammation, inactivity, or a treatable gastrointestinal disorder.

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Take Action

Progressive muscle loss, weakness, difficulty standing from a chair, slower walking, reduced endurance, or unexplained weight loss in someone with chronic gastrointestinal or liver disease deserves evaluation. Sarcopenia can occur even when body weight alone does not appear concerning, so strength and muscle quantity may need to be assessed directly.

Visit **GastroDoxs.com** to schedule an appointment and access more resources on digestive health.



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take the next step
today!

SCHEDULE AN APPOINTMENT

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