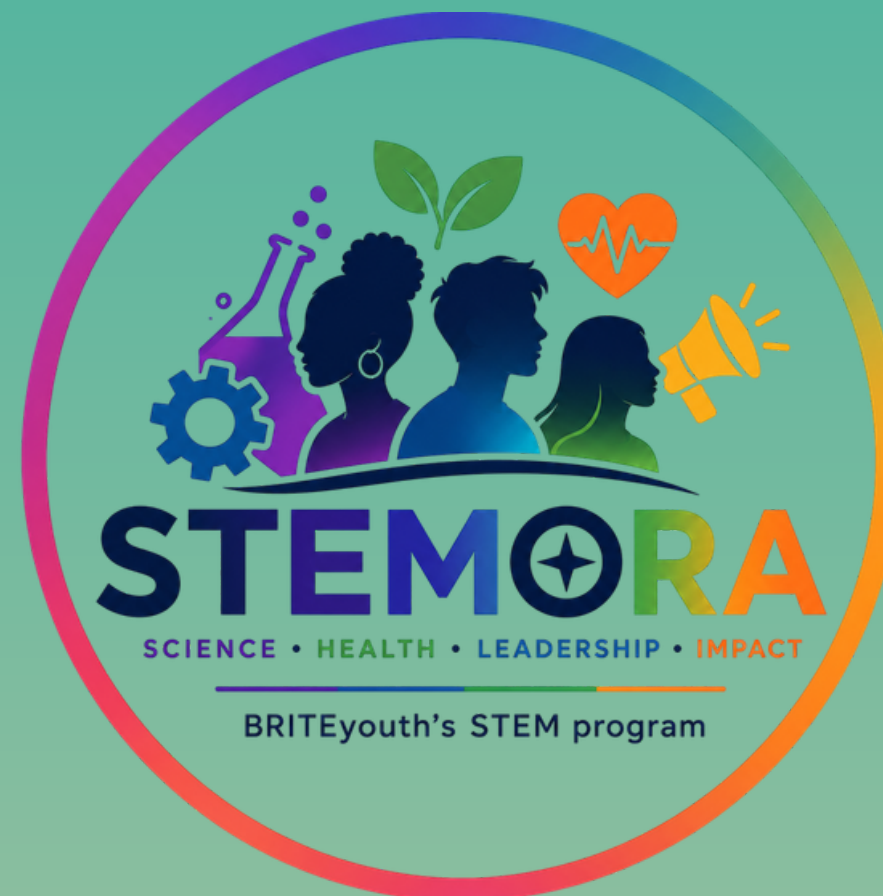


STEMORA Learning Toolkit

Celiac Disease Awareness

Understanding the Science. Supporting the Community.



What is Celiac Disease?

Autoimmune Disease

- eating gluten harms the body.

Celiac Disease vs. Food Allergy

attacks small intestine	causes skin allergy
not obvious symptoms	very obvious symptoms
have a long term affect	usually a sudden side effect

Did You Know?

About 1 in 100 people worldwide have celiac disease, but most don't know it. It can take an average of 6-10 years to get diagnosed!

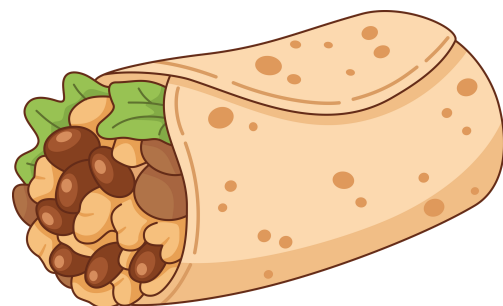
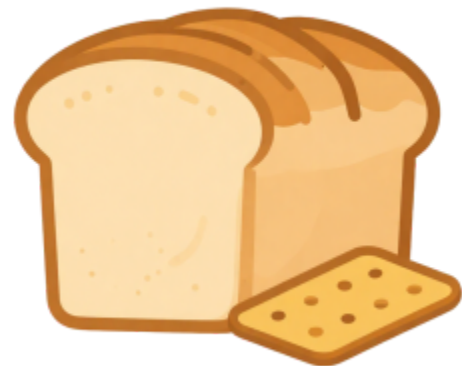


Understanding Gluten

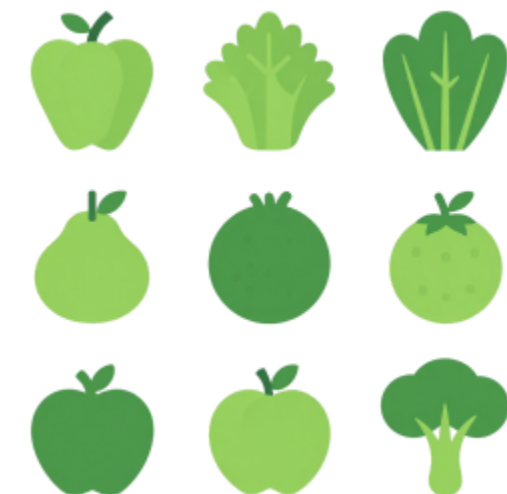
What is Gluten?

a natural protein found in specific grains

Contains Gluten X



Naturally Gluten-Free +



Signs & Symptoms

Common Symptoms

Bloating &
gas

Diarrhea or
constipation

Fatigue &
weakness

Headaches &
brain fog

Skin rash
(dermatitis)

Joint &
bone pain

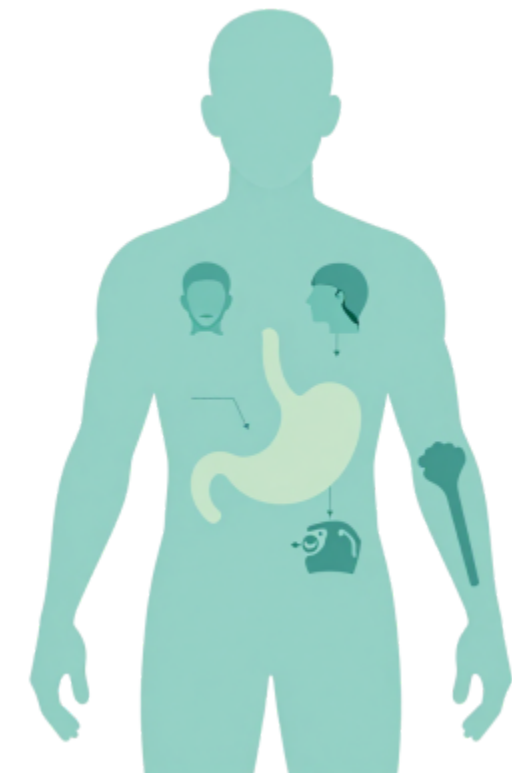
Weight
loss

Mood changes
& irritability

Possible Long-Term Complications

- Anemia & nutrient deficiencies
- Osteoporosis (weak bones)
- Infertility
- Increased risk of other autoimmune diseases

Remember: Symptoms vary widely between individuals. Some people have no obvious symptoms at all!



Diagnosis & Treatment

1

Blood Test

A blood test checks for specific antibodies (tTG-IgA) that are elevated when gluten triggers an immune response.

2

Endoscopy

A small camera examines the small intestine and takes a tiny tissue sample (biopsy) to check for damage to the villi.

3

Gluten-Free Diet

The only treatment is a strict lifelong gluten-free diet. The intestine can heal once gluten is removed.

4

Reading Labels

Learning to read food labels is essential. Look for 'gluten-free' certification and check ingredient lists carefully.

Cross-Contamination

Even tiny amounts of gluten can cause damage. Here are common ways cross-contamination happens:

Shared Toaster

Bread crumbs containing gluten remain on surfaces and transfer to gluten-free bread.

Shared Cutting Boards

Gluten particles embed in scratches and transfer to other foods during preparation.

Restaurant Fryers

Gluten-free foods fried in the same oil as breaded items pick up gluten.

Shared Utensils

Spoons, colanders, and spatulas used with gluten foods can contaminate safe foods.

Spot the safe items!

Can you spot which items are safe to eat if you have celiac disease from the workshop slideshow

1. _____ 2. _____ 3. _____ 4. _____

Gluten Detective Challenge

Sort each food into the correct category:



Naturally Gluten-Free



Contains Gluten



May Contain Hidden Gluten

Rice

Pasta

Oats (regular)

Fresh Fruit

Soy Sauce

Corn Tortilla

Bread

French Fries

Quinoa

Beer

Salad Dressing

Plain Chicken

Crackers

Eggs

Granola Bar

Potatoes

Write your answers below:

Myth vs. Fact

MYTH: Celiac disease is just a gluten allergy.

FACT: It's an autoimmune disease, not an allergy. The immune system attacks the body's own tissue.

MYTH: People with celiac can eat a little gluten.

FACT: Even tiny amounts cause intestinal damage, even without symptoms.

MYTH: Gluten-free foods are healthier for everyone.

FACT: GF foods aren't necessarily healthier and may lack nutrients found in whole grains.

MYTH: Cross-contamination doesn't really matter.

FACT: Even crumbs can trigger an immune response and damage the intestine.

MYTH: You can always tell if someone has celiac.

FACT: Many people have no visible symptoms. It's often called a 'silent' disease.

MYTH: Only children get celiac disease.

FACT: It can develop at any age, from infancy to adulthood.

MYTH: People with celiac can eventually eat gluten again.

FACT: Celiac disease is lifelong. A strict GF diet must be maintained forever.

MYTH: There's nothing friends can do to help.

FACT: Friends can learn about safe foods, suggest inclusive restaurants, and be supportive.

Real Stories: Living with Celiac Disease

A Day in My Life

Imagine navigating these everyday situations with celiac disease:

- Grocery shopping - reading every label
- Restaurants - asking detailed questions
- School events - bringing your own food
- Travel - planning meals in advance
- Family gatherings - explaining your needs
- Reading food labels - checking for hidden gluten

Challenges & Triumphs

Write an inspiring quote or reflection here:

What I Wish Others Knew

Short messages encouraging empathy and inclusion:

Reflection

What surprised you today?

How can you help someone feel included?

Why are personal stories important in healthcare?

STEM Spotlight

Careers that make a difference for people with celiac disease



Gastroenterologist

Diagnoses & treats digestive disorders including celiac disease

Pathway: Medical school + residency + fellowship



Registered Dietitian

Creates safe meal plans & educates patients on gluten-free living

Pathway: Bachelor's + supervised practice + exam



Immunologist

Studies how the immune system reacts to gluten in celiac patients

Pathway: Medical school or PhD in immunology



Food Scientist

Develops safe gluten-free products & tests for contamination

Pathway: Bachelor's or Master's in food science



Biomedical Researcher

Investigates new treatments & potential cures for celiac disease

Pathway: PhD in biomedical sciences



Public Health Professional

Advocates for food labeling laws & community health education

Pathway: Master's in public health (MPH)

Reflection & Action Plan

One new fact I learned:

Something that surprised me:

One way I can support someone with celiac disease:

One STEM career I found interesting:

One action I will take after today's workshop:

Use the space below for notes and doodles!

Resources & Next Steps

Reliable Resources

- Celiac Disease Foundation - celiac.org
- Beyond Celiac - beyondceliac.org
- National Institute of Diabetes & Digestive Diseases (NIDDK)
- Gluten Intolerance Group - gluten.org
- Academy of Nutrition and Dietetics - eatright.org
- FDA Food Labeling Guide - fda.gov

Workshop Notes

"Thank you for being part of STEMORA's mission to make health education accessible, inclusive, and student-led."

Part of the STEMORA Learning Library