Celiac Disease

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What Is Celiac Disease

- Celiac disease (CD) is a chronic digestive disease in which individuals that consume the grain protein gluten experience damage (inflammation/irritation) to the lining of the small intestine (leading to villous atrophy).

- This damage leads to nutrient malabsorption (1)
  - CD is a genetic disorder and is classified as an autoimmune disease (1)

- It is estimated that 1 in 133 people in Canada are affected (2)
  - 97% don't know they even have celiac
Villi of small intestine, showing blood vessels and lymphatic vessels

Diagram to Show the Different Stages of Celiac Disease

What’s the Cause?

- Originally the cause was believed to be due to some "toxic" property of gluten

- Abnormal Immune response to gluten now believed to be the primary cause

Gluten

- Gluten- a generic term for the storage proteins that are found in grains

- Each grain has a specific name for each of its proteins
  - Wheat – Gliadin
  - Rye – Secalin
  - Barley – Hordein
  - Oats – Avenin
  - Corn - Zein
  - Rice- Oryzenin in rice - is slightly different from the others
Beware of GMO’s!

• GM foods create foreign proteins that are harmful to your gut in specific and health in general!

• For More Info
  – Read fantastic book “Seeds of Deception”
    www.seedsofdeception.com
  – Watch documentary “They Are Killing You”
    http://www.youtube.com/watch?v=MKABsyX6SM8

Common Symptoms of Celiac Disease

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<thead>
<tr>
<th>Symptom</th>
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<tbody>
<tr>
<td>Bloating or Gas</td>
<td>Diarrhea</td>
<td>Constipation</td>
<td>Fatigue</td>
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<tr>
<td>Itchy Skin Rash</td>
<td>Tingling/Numbness</td>
<td>Pale Mouth Sores</td>
<td>Joint Pain</td>
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<tr>
<td>Delayed Growth</td>
<td>Poor Weight Gain</td>
<td>Thin Bones</td>
<td>Infertility</td>
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<tr>
<td>Headaches</td>
<td>Depression</td>
<td>Irritability</td>
<td>Discoloured Teeth</td>
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Table Sourced From: National Foundation for Celiac Awareness
Problems Linked to Celiac Disease

• Malabsorption

• Thyroid abnormalities (4)
  – Both hypo and hyperthyroidism

• Insulin-dependent diabetes mellitus (Type I Diabetes) (1)

• Psychiatric issues (including schizophrenia & depression)

• Skin conditions (dermatitis herpetiformis & urticaria)

Problems Linked to Celiac Disease

• Osteoporosis (2)

• Migraine (3)

• Malignant cancers
  – Intestinal lymphoma, NHL

• Dementia (5)
NUTRITIONAL DEFICIENCIES & CELIAC DISEASE

• Fatty acids
• Vitamin B₆
• Folic Acid
• Vitamin D
• Vitamin K
• Vitamin E
• Calcium
• Magnesium
• Zinc
• Iron
• Copper
• selenium

What To Do?

• The only solution shown to have any real impact.....

Follow a strict gluten free diet!
Gluten Containing Foods

- Wheat
- Kamut
- Barley
- Rye
- Triticale
- Spelt
- Oats (most people with celiac disease can consume)
- Be aware of cross contamination!

For a more thorough list visit:
- http://www.celiac.ca/EnglishCCA/egfdiet2.html#allowed

“Come Out, Come Out, Wherever You Are”
Some Possible Hidden Sources of Gluten

- Salad dressings
- Cold cuts
- Toothpastes
- Ice-cream
- Malt Vinegar
- Artificial Colours
- Ground Spices
- Maltose
- Mustard
- Smoke Flavourings
- Soy Sauce
- Miso
How about Wheatgrass & barley grass?

• USDA research chemists, specializing in wheat gluten & cereal proteins & the American Association of Cereal Chemists state:

  • gluten is found only in the seed kernel (endosperm) & not in the stem and grass leaves. If the grass is cut from a growing plant and does not include the seed kernel, it should be safe for persons with gluten intolerance to use.

Supportive Measures
Enzymatic Support

Pancreatic Enzymes

• 8 – 30% of celiac patients have pancreatic insufficiency (Gastroenterology, 1998)

• Children given pancreatic enzymes showed increased growth during the first 60 days of a gluten free diet (Digestive Diseases and Sciences, 2005)

• I would recommend “Wobenzym N”

Enzymatic Support

Enzyme Breaks Down Gluten

• Prolyl endoprotease (PEP) that was studied is derived from Aspergillus niger (AN), a common fungus
  • Known as AN-PEP

• Experiments showed AN-PEP “broke down gluten in the stomach so effectively that almost no gluten reached the duodenum compartment”. (2)(3)

• AOR makes a product with this enzyme called “IBD Relief”
Enzymatic Support

• DPP-IV
  – An enzyme that helps break down protein found in gluten
  – Look for one with 60,000 HUT units(1)
  – Enzymedica makes one called Gluten Ease

Given Malabsorption Issues Consider Using

• Progressive Active Multi
  – May help address nutrient malabsorption
  – Use of enzymes and Bioperine to maximize absorption
  – Use a 3 a day & not a one a day “hi-potency” or timed-release tablet

• Progressive Complete Calcium
  – Contains minerals & complimentary co-factors to support bone health

• Progressive Ultimate Fish oil
  – Both anti-inflammatory and compliments bone health
  – Natural balance of EPA & DHA
  – Supportive complimentary ingredients
  – Free of contaminants and natural stabilizers to prevent rancidity
Given Malabsorption Issues Consider Using

• **I-Glutamine** (don’t use glutamine peptides)
  – Helps increase villous length
  – Supports liver function
  – Helps “heal” leaky gut syndrome
  – Precision micronized glutamine
    • HPLC tested
    • Micronized - better dissolving
      - Stays in solution longer

Given Malabsorption Issues Consider Using

• **Progressive HCP70 Probiotic**
  – Microbial imbalances have been identified in those with CD so establishing healthy gut microbes is important!
  – Probiotics support gut health & intestinal wall integrity
  – Probiotics increase nutrient absorption (Calcium, zinc, iron, manganese, copper, phosphorus & many B vitamins)
  – HMF Neuro by Genestra contains these strains
    • *Lactobacillus crispatus* (CLT221) and *Lactobacillus rhamnosus* (CLT341) (2)
Given Increased Osteoporosis Risk

- **Calcium** (which should include magnesium & Vitamin D3)
  - Progressive Complete Calcium

- **Whey**
  - Whey has immune modulating activity, bone protective properties, rich in calcium and is alkaline
  - Use Harmonized Protein
    - Has numerous supportive co-factors to maximize absorption, support liver and kidney function

- **Fish Oil**
  - Progressive Ultimate Fish Oil

- **Fermented soy** (assuming individual doesn’t have soy allergy)
  - SoyOne

- **Alkalize diet**
  - VegeGreens
  - PhytoBerry
  - Harmonized Protein

- **Do weight bearing exercises**
VSL#3

• “Our finding may well reflect a deviant gut flora in CD, which may be a new piece in the intriguing puzzle…” VSL#3 probiotic added to wheat flour has also been shown to be able break down gliadin [gluten protein in wheat] the toxic protein in celiac disease

• For more info visit http://www.vsl3.com/

Reducing The Risk

• Breastfed babies have a decreased risk of developing celiac disease

• Should continue for longer than 1 month

• Delaying the introduction of dairy and wheat in infants can lower risk of developing celiac disease
Testing For Celiac Disease

• Not sure if you may have celiac disease?

• There are some simple tests that can be done to determine your probability of having celiac disease

Fingerprints May Offer Some Clues

• This slide and the following ones are based on info taken directly from Dr. Peter D'Adamo’s, N.D. website http://www.4yourtype.com/fingerprint.asp

Little White Lines

• “If your fingerprint ridges are worn, you’re likely to see a pattern of white lines among your fingerprints—secondary creases on your fingers that become visible when your ridges are low.”

• “Research dating back to the early 1970s shows a correlation between the appearance of white lines and the incidence of celiac disease.”

• “Typically, the number of white lines increases with age as gut integrity continues to deteriorate. In many cases, these white lines begin to vanish with the maintenance of a gluten-free diet.”
Fingerprints May Offer Some Clues

- Doctors at the Pediatric Gastroenterology and Nutrition Service in Israel studied

Loops

- Whorls were more frequent and ulnar loops were less frequent, significantly, in celiac patients than in controls. A digital pattern of four or more whorls was present in 69% of celiac patients, but in only 28% of controls. They concluded that particular dermatoglyphic patterns are significantly more common in patients with celiac disease than in controls.

Arches

Whorls

Fingerprints May Offer Some Clues

- “We conclude that particular dermatoglyphic [fingerprint] patterns are significantly more common in patients with celiac disease than in controls. We therefore suggest that this marker be used as a diagnostic clue, indicating the need for further investigation.”

THE GENOTYPE DIET

• For more info on fingerprint patterns and diseases like breast cancer and Alzheimer’s read “The GenoType Diet” and watch video link below

• Celiac Disease
  http://www.5min.com/Video/How-to-Determine-Fingerprint-Patterns-72416331

• Alzheimer’s Disease
  http://www.alztest.com/alzheimers8.html

• Breast Cancer

Testing For Celiac Disease

• Not sure if you may have celiac disease?

• Now there is a simple home test that can accurately determine if you have celiac disease

• If you need more info on this product and are interested in carrying this product in your store please email me keepwell@sympatico.ca