

**Coeliac Disease and the Gluten Free Food Service in Scotland:
an essential update for Pharmacists & Pharmacy Technicians**

June 2014

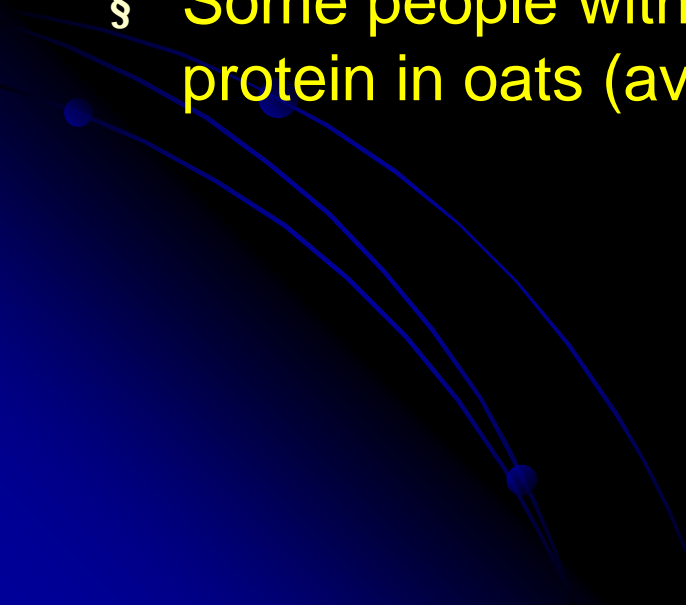
Coeliac Disease/ DH

A full update on diagnosis, management & healthy living tips

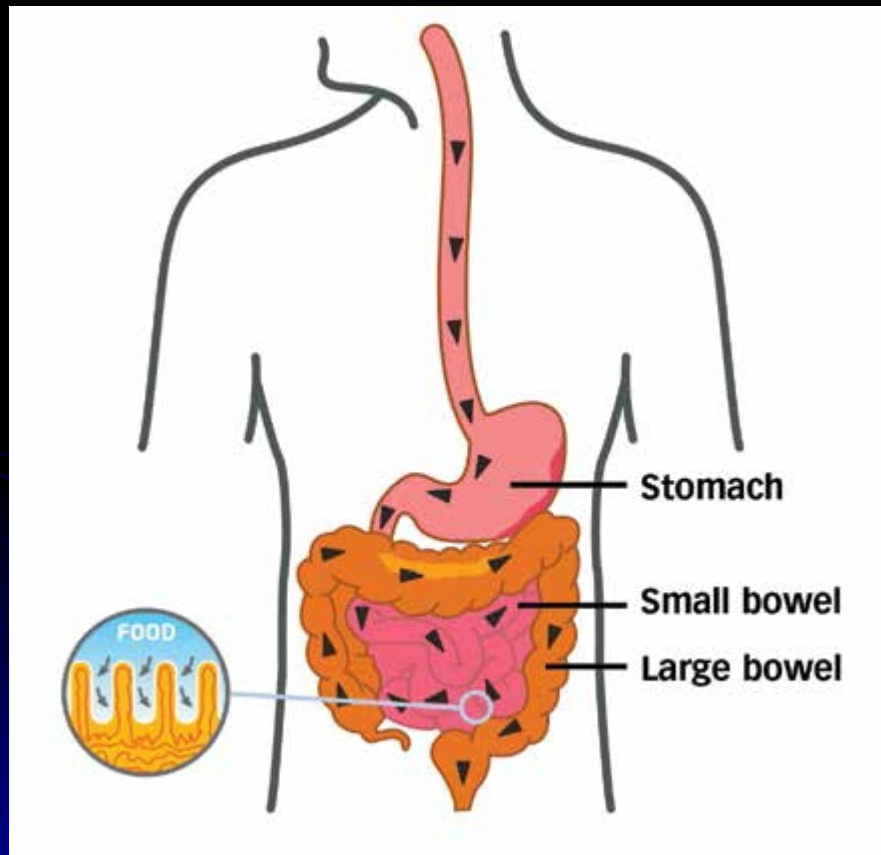
Jo Stewart
Community Dietitian



What is Coeliac Disease? (CD)

- § CD is an autoimmune condition triggered by a reaction to gluten
 - § Gluten is the protein part of **wheat, barley, rye**
 - § Some people with CD/ DH react in a similar way to the protein in oats (avenin)
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What part of the gut is effected?



Clinical symptoms

- § Unexplained iron-deficiency anaemia
- § Diarrhoea
- § Constipation
- § Abdominal pain
- § Wind/ bloating
- § Vomiting
- § Unexplained weight loss
- § Faltering growth in children
- § Mouth ulcers

NICE CG86- Recognition and assessment of coeliac disease

<p>Symptoms where serological testing <i>should be offered</i></p> <ul style="list-style-type: none"> •Chronic or intermittent diarrhoea •Recurrent abdominal pain/cramping/distension •Failure to thrive •Vomiting •Weight loss (sudden or unexplained) •Prolonged fatigue •Iron deficiency anaemia, or other unspecified anaemia •Constipation •Faltering growth/ idiopathic short stature 	<p>Symptoms where serological testing <i>should consider being offered.</i></p> <ul style="list-style-type: none"> •Amenorrhoea •Mouth ulcers •Dental enamel defects •Low-trauma fracture •Microscopic colitis •Persistently raised liver enzymes •Reduced bone mineral density •Unexplained alopecia
<p>Presenting conditions where serological testing <i>should be offered</i></p> <ul style="list-style-type: none"> • Autoimmune thyroid disease • Dermatitis herpetiformis • Irritable bowel syndrome • Type 1 diabetes • Children of first degree relatives with coeliac disease 	<p>Presenting conditions where serological testing <i>should be considered</i></p> <ul style="list-style-type: none"> • Addison's disease • Autoimmune liver conditions • Autoimmune myocarditis • Depression or bipolar disorder • Down's syndrome • Lymphoma • Epilepsy • Metabolic bone disease • Polyneuropathy • Sarcoidosis • Sjogren's syndrome • Turner syndrome • Unexplained subfertility

IgA tissue transglutaminase (tTGA) should be the first-choice serological test



Patients must be following a gluten-containing diet before serological testing

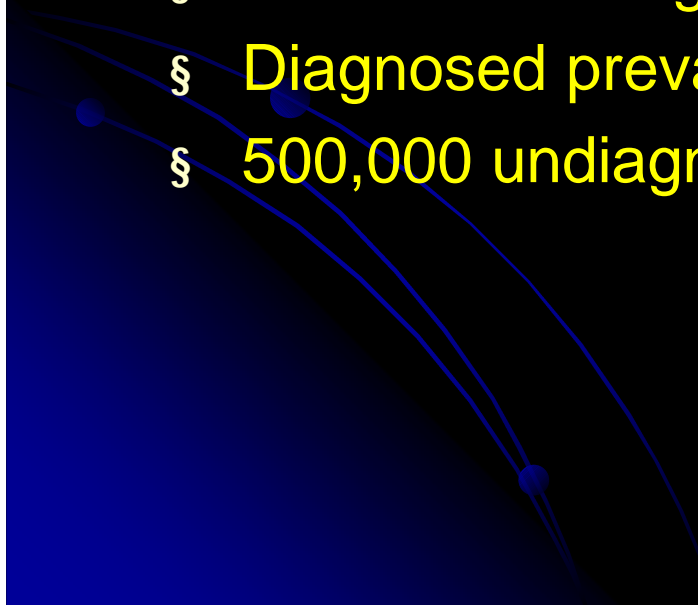


If serology positive a biopsy must be performed before a true diagnosis can be made (patient must remain on gluten-containing diet)

Screening and Diagnosis

- § Anti-IgA tissue transglutaminase (tTGA)
- § All adults **MUST** get small bowel biopsy to confirm diagnosis
 - § BSPGHAN guidelines 2013 suggest biopsy not always required for children and they may have genetic testing instead. If this new strategy is used it must be under supervision of paediatric gastroenterologist and dietitian
- § ***Throughout testing the patient must be consuming gluten***

How common is Coeliac Disease?

- § Affects 1 in 100 people
 - § Studies indicate prevalence 0.8 - 1.9%
 - § Female to male ratio 2:1
 - § Prevalence in first degree relatives around 1 in 10
 - § 85 - 90% undiagnosed
 - § Diagnosed prevalence 0.08 - 0.29%
 - § 500,000 undiagnosed in UK
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Dermatitis Herpetiformis

§ Skin manifestation of CD



§ 1 in 10,000

§ Itchy blistering skin rash



§ Rash classically on knees, elbows, buttocks


§ Most have some degree of mucosal damage consistent with CD

§ Not all respond completely to gluten-free diet

Treatment

- § The only treatment for CD is life-long avoidance of gluten
- § Dapsone therapy is used for DH if not fully controlled with GF diet
- § Diet therapy provided via dietitian
- § Those who strictly adhere to a gluten-free diet will lead healthy, normal lives and will be protected against the health risks associated with the untreated condition

Consequences of non-compliance

- § Osteoporosis
 - § Anaemia
 - § Nutritional deficiencies
 - § Chronic malabsorption
 - § Fertility problems
 - § Malignancy (particularly lymphoma)
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Nutritional Issues

I Increased calcium requirements for adults are between 1000-1500mg daily

∅ 1000mg for over 18yr

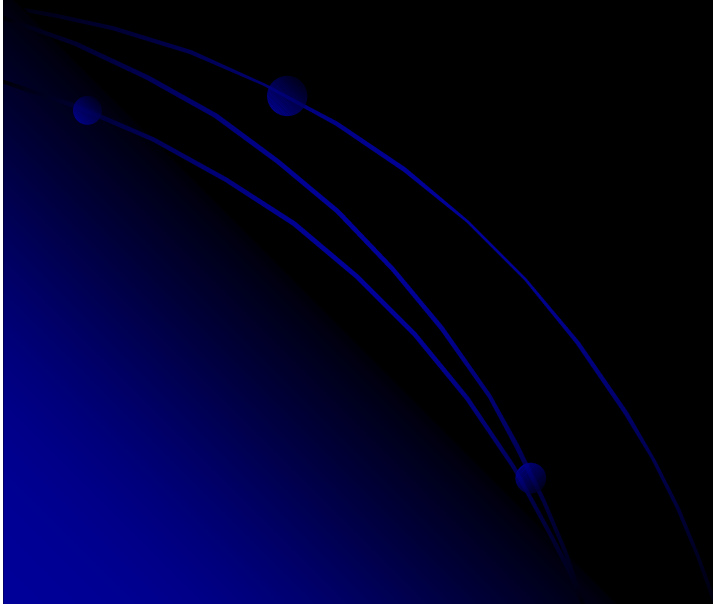
∅ 1200mg for post menopausal women and men over 55yr

∅ 1500mg for breastfeeding women

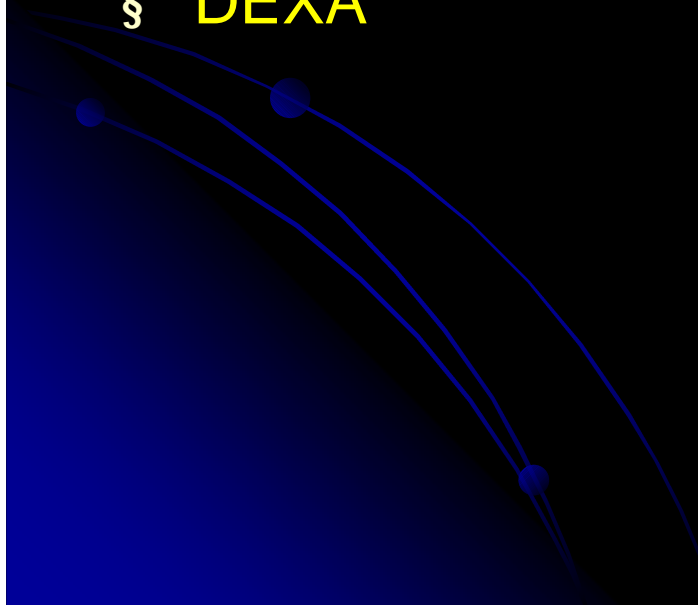
• Calcium supplements (with vit D) often required to meet this

Nutritional Issues

- | Anaemia
- | B12 & folate
- | Fibre
- | Weight



Follow-up

- § Best practice to have annual review by HCP
 - § Bloods to check compliance, absorption & for other autoimmune conditions
 - § Highlight compliance issues
 - § Weight
 - § DEXA
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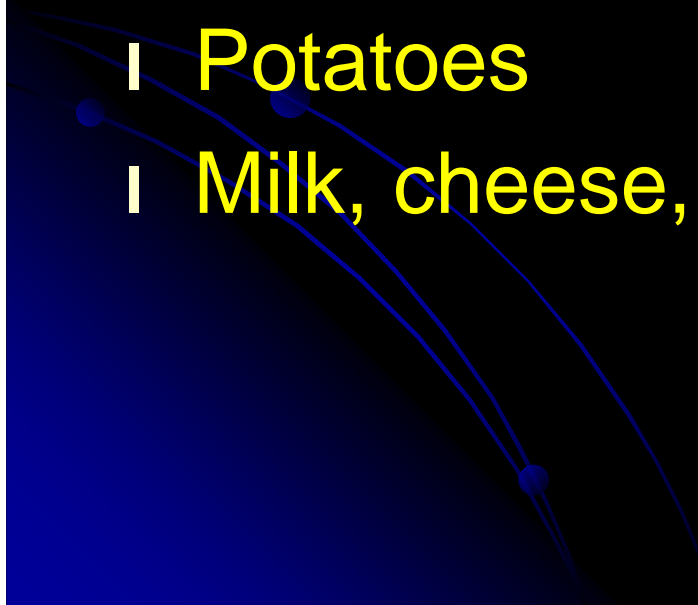
Follow up- DEXA

BSG guidelines (2010) recommend DEXA:

- | Diagnosis in adults
- | Every 3yr if abnormal but no treatment required
- | Men at 55yr
- | At menopause in women

The Gluten Free Diet-

Naturally Gluten Free Foods

- | Fresh meat & fish
 - | Eggs
 - | Fruit & Vegetables
 - | Rice
 - | Potatoes
 - | Milk, cheese, cream, butter
- 

The Gluten-Free diet

- § Avoid wheat, rye, barley
- § Mainly found in bread, pasta, biscuits, cake, flour, pizza
- § Oats - avoid for 12 months and symptoms resolved
- § Use Coeliac UK Food and Drink Directory to check if processed food is gluten-free
- § Check labels of all processed foods e.g. soya sauce, stock cubes, cornflakes

Common plants, seeds, grains, cereals & flours

Gluten-free	Not gluten-free
Codex wheat starch	Barley
Cornflour	Bulgar wheat
Flax/linseed	Cous cous
Gram flour	Durum wheat
Millet	Modified wheat starch
Maize starch	Pearl barley
Polenta	Rye
Quinoa	Semolina
Rice flour	Spelt
Soya flour	Wheat
Tapioca	Wheat flour

Food labelling Law

- § Manufactures have had to comply with the updated Law on Gluten-Free food since January 2012
- § **Gluten-Free** - is covered by the law and applies only to food which has 20 parts per million (*ppm*) or less of gluten
 - § e.g. Naturally gluten-free, pure uncontaminated oats, specialised substitute products
 - § CD/DH patients can eat gluten-free food
- § **Very low gluten** - is covered by the law and is for foods which have between 21 and 100 ppm
 - § Not currently seen in the UK but can be seen in Europe
 - § Most CD/DH can eat very low gluten foods
- § **No gluten-containing ingredients** - for foods that are made with ingredients that do not contain gluten and where *cross contamination* controls are in place
 - § Used in restaurants/ cafes
 - § CD/DH can eat these foods



Food labelling Law cont....

- § EU Food Information for Consumers Regulation (EU FIC) produced new allergen labelling law from December 2014
- § Minimum font size written on pack
- § Allergens (including gluten, wheat, barley, rye, oats) will be emphasised on a food label in bold
- § Advice boxes do not need to be used for deliberate allergens but only for potential allergens
 - ∅ **MAY CONTAIN** traces of wheat
 - ∅ **PRODUCED ON A LINE WHICH HANDLES** wheat



Cross Contamination

- | Use separate toasters
- | Watch out for shared foods- jams, spreads
- | Store foods separately
- | Eating out

Small amounts of gluten regularly will cause gut damage even if not symptomatic

Further Information for Patients

- | Coeliac UK is a major source of information and support for CD/ DH patients and can signpost to local support groups
- ∅ Contact details <http://www.coeliac.org.uk>
or Helpline 0845 305 2060
- ∅ Coeliac UK Food & Drink Directory
- | NHS Inform website www.nhsinform.co.uk
- | Many of the GF food manufacturers will have info, recipes on websites & give free samples

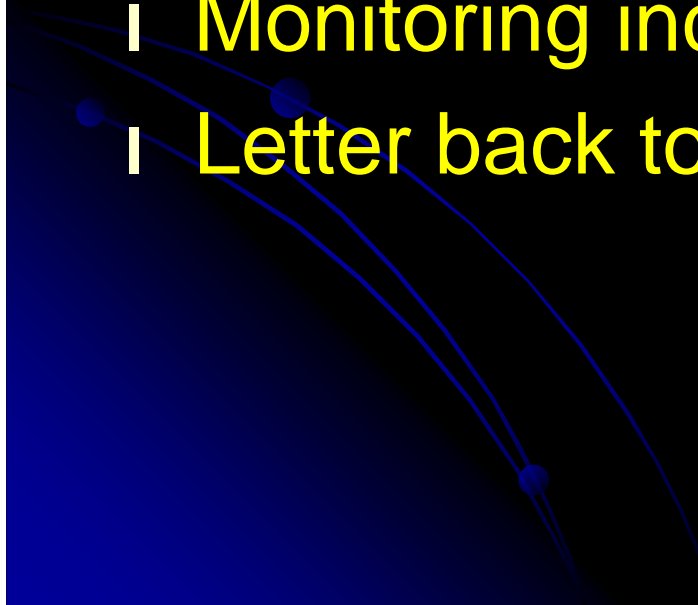
Gluten-Free Prescribing

- § National recommendations for the number of gluten-free units patients can order each month
- § The amount of gluten-free units patients are given should meet their individual dietary needs
- § Based on around 15% energy needs from carbohydrate
- § Varies by age, gender and if patient pregnant (third trimester) or breastfeeding
- § **Patients requiring extra units need to be assessed by a dietitian**

National Unit Allocation

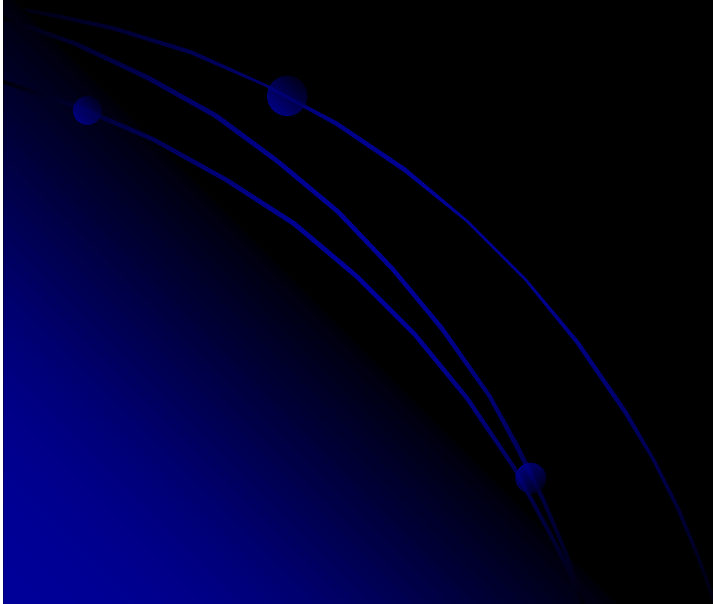
Age and Sex	Units per Month
§ 1-3 years	10
§ 4-6 years	11
§ 7-10 years	13
§ 11-14 years	15
§ 15-18 years	18
§ Male 19-59 years	18
§ Male 60-74 years	16
§ Male 75+ years	14
§ Female 19-74 years	14
§ Female 75+ years	12
§ Breastfeeding	+4
§ 3 rd trimester of pregnancy	+1

The Health Check

- | Concordance
 - | Interactions & precautions
 - | Adverse effects (symptoms)
 - | Monitoring including Wt, Ht, BMI
 - | Letter back to patients GP
- 

BMI ranges

- | $<18.5\text{kg/m}^2$ Underweight
- | $18\text{-}25\text{kg/m}^2$ Healthy
- | $25\text{-}30\text{kg/m}^2$ Overweight
- | $>30\text{kg/m}^2$ Obese



Support for Pharmacists

- | GFF Service Implementation and Support Pack (NES)
- | Join CUK- free for HCP's!
- | NHS inform
- | NES webinar
- | Contacts with local dietetic dept, GI team, GF formulary group

Summary



- | Important to diagnose patients properly before starting GF diet
- | Once diagnosed strict GF diet should be adhered to for long term health
- | Annual review very important
- | Encourage patients to join the new service & enjoy a more varied diet
- | Provide a better quality service to the patient

Questions?

