



## Common health problems in coeliac disease

Part of an education programme on coeliac disease and the gluten-free diet developed by

The Dr Schär Institute



### Learning Unit 2 *for pharmacy technicians*



# Learning Unit 2

## Common health problems in coeliac disease *for pharmacy technicians*

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# Section 1

## Foreword

As you know these learning units have been developed by the Dr Schär Institute to help you optimise the service you provide to customers with coeliac disease. This learning unit is designed to be completed with the support of a pharmacist and will build on the knowledge you have gained from Learning Unit 1 : Coeliac disease by alerting you to the possible health problems commonly seen in coeliac disease.

This learning unit has been accredited by the Royal Pharmaceutical Society (RPS) and it's successful completion can help you meet the General Pharmaceutical Council requirement to undertake Continuing Professional Development (CPD) each year. We estimate that this unit will provide approximately 3.5 hours of CPD (please note this is for guidance only).

This learning unit is the second in a series of three and the full programme comprises:

Learning Unit 1 - Coeliac disease

Learning Unit 2 - Common health problems in coeliac disease

Learning Unit 3 - Diabetes and weight control in coeliac disease

Remember, more cases of this disease are being recognised and understanding the long term needs of your customers with coeliac disease allows you to develop valuable customer loyalty and gives you an opportunity to provide an optimal service.

## Activity 1 - a reminder from learning unit 1

Discuss with your pharmacist and quantify:

1. The number of customers with a diagnosis of coeliac disease who visit your pharmacy.
2. The number of people that you could estimate who visit your pharmacy who could have undiagnosed coeliac disease.

The best way that you can help your customers who have coeliac disease is to encourage adherence to a balanced gluten-free diet. Your customers with coeliac disease should be encouraged to eat for health using the “Eat Well Plate”. As you will remember, this was reviewed in Learning Unit 1. Following a healthy diet can reduce the chance of developing complications of the disease. These complications will be highlighted in this learning unit.



## How to use this learning unit

This programme of three learning units is for pharmacy technicians. It is complemented by a parallel programme for pharmacists also provided by Dr Schär Institute.

Work your way through this unit and remember your pharmacist is there to give you any support you may need.

### Learning Objectives

On completion of this module, you will:

- Be aware of the common health problems associated with coeliac disease.
- Be aware of the number of customers who may have health problems associated with coeliac disease.
- Have an understanding of the number of customers coming into your pharmacy who are at risk of complications associated with coeliac disease.
- Be able to explain to customers the importance of following a well balanced gluten-free diet.
- Be able to explain to customers with coeliac disease some dietary changes that may reduce the risk of complications.

Answers to the activities used in this learning unit are to be found on page 26.



## Introduction

The first learning unit in the series explored

- The clinical presentation of coeliac disease.
- The nutritional needs of customers with coeliac disease.
- The role of the Pharmacy technician in supporting customers with coeliac disease.

In addition, the learning unit considered that a number of customers may have undiagnosed coeliac disease. This unit will examine the common health problems that are associated with a diagnosis of coeliac disease. It will be evident from your every day practice that the most important aspect from a customer's viewpoint on any disease, and particularly chronic diseases, is their appetite for information.

Your role will be to support your customers in following a gluten-free diet e.g. ensuring they know about new gluten-free foods, finding favourite recipes, checking they are refreshing their bread correctly and telling them about other sources of information. The provision of accurate information will help your customers maintain a healthy lifestyle and reduce worry and stress about their disease.

We will examine a number of key areas in the disease process associated with coeliac disease. These include:

- Osteoporosis.
- Anaemia.
- Malignancy (cancers).
- Infertility.
- Dermatitis herpetiformis.
- Lactose intolerance.
- Diabetes (*Learning Unit 3*).



## Activity 2

Please take a few moments to jot down what you already know about the conditions in the following table.

Condition	What does this term mean?	How is this condition treated?
Osteoporosis		
Anaemia		
Malignancy		
Infertility		
Dermatitis herpetiformis		
Lactose intolerance		

We will now look at the common health problems listed above in turn . . .





# Notes



## Section 2

### Osteoporosis

#### Definition and presentation

Osteoporosis literally means porous bones and is a common condition in the general population. It is estimated that some 1 in 3 women and 1 in 12 men are affected. Your bones are at their hardest (bone density) between 20 and 35 years of age and then reduce in density by about 1% per year. This happens more quickly in women after the menopause.

Osteoporosis can be detected by scanning and measuring bone density, however the first sign is usually a break in a bone (fracture). These breaks are commonly of the wrist. In addition customers may complain of back pain, a curved back, or loss of height, as shown here. One of the worst aspects of osteoporosis is pain, which can severely affect someone's quality of life. Pain is particularly associated with the back and this may be caused by abnormal stresses on the muscles holding the spine. This can cause the characteristic chronic, dull aching pain in the lower back. Up to 50% of people with coeliac disease may develop osteoporosis, and more than 75% of untreated adults with coeliac disease may have a reduced bone mineral density (BMD), an indirect indicator of osteoporosis and fracture risk<sup>1,2</sup>. The good news is that a strict gluten-free diet and an adequate calcium intake can help.



David Gifford/Science Photo Library

#### Role of calcium and vitamin D

General health measures can be taken to help protect against osteoporosis. These include an adequate calcium intake (an important part of bone), exercise and the avoidance of smoking and excessive alcohol consumption. The most important aspect can be an adequate intake of calcium and vitamin D.

Calcium is the most plentiful mineral in the body. Approximately 99% of the body's calcium is in the bones and teeth. Only 20-30% of calcium in the diet is normally absorbed but this can be less in coeliac disease due to damage caused within the gut. Calcium absorption is dependent on vitamin D.

Vitamin D is actually a hormone (a compound made in one part of the body that exerts its effects at a remote part). It has three effects:

- It helps the absorption of calcium (calcium is crucial to keep your bones healthy).
- It balances the amount of calcium in your bones and in your body generally.
- It stops too much calcium being excreted through your kidneys.

Most vitamin D is made by the action of sunlight on the skin. Good dietary sources of vitamin D include oily fish, eggs, margarine, dairy products and cod liver oil.





**Because customers with coeliac disease do not absorb calcium well there is a greater risk of osteoporosis.**

As you discovered in Learning Unit 1 the diagnosis of coeliac disease is often delayed and many customers will have experienced reduced calcium absorption for many years. This can lead to osteoporosis.

## Dietary calcium

The Recommended Daily Allowance for calcium is 800mg/day<sup>3</sup>.

You may have seen reference to this figure on some food packets in the nutrition information panel such as the one shown here.

Based on a guidelines from the British Society of Gastroenterology<sup>4,5</sup> it is recommended that adults with coeliac disease should consume between 1000mg and 1500mg/day. Post-menopausal woman and men over 55 should consume at least 1200mg/day.

The major source of calcium in the diet is milk and milk products e.g, cheese, yogurt. However, you may be surprised to know that bread and cereals (foods avoided within a gluten free diet) contribute approximately 25% of our daily calcium intake<sup>6</sup>. Therefore, not only do patients with coeliac disease require more calcium to counteract poor absorption of this mineral, but the nature of the gluten free diet also results in a potentially lower calcium intake.

Nutrition Information		
Typical Values	Per 100g	Per 4 slices (daily serving)
Energy	900kJ	972kJ
	212kcal	229kcal
Protein	3.6g	3.9g
Carbohydrates	45g	49g
of which sugars	6g	6.5g
Fat	2g	2.2g
of which saturates	1g	1.1g
Fibre	3g	3.2g
Sodium	0.4g	0.4g
Calcium	380mg(48% RDA <sup>**</sup> )	410mg(51% RDA <sup>**</sup> )

\*\*Recommended Daily Allowance

Some prescribable gluten free foods are enriched with calcium and patients should be encouraged to choose such options and provided with advice on including more calcium and vitamin D rich foods. Some patients may require a calcium supplement, a state registered dietitian will be able to advise on this and monitor/ review a patient's calcium intake.

Where nutritional supplements are required to boost dietary calcium intake, these should be taken in divided doses to maximise absorption.

## Dairy Sources of calcium

Food	Calcium content per individual serving
Semi-skimmed milk	234mg / 1/3 pint
Whole milk	224mg / 1/3 pint
Low fat fruit yoghurt	188mg / 1 small pot
Greek yoghurt, cows	338mg / 225g 1 average pot
Cheddar cheese, average	288mg / 40g average in a sandwich
Cheddar cheese, vegetarian	276mg / 40g average in a sandwich
Cottage cheese, plain reduced fat	82mg / 112g small pot
Dairy Vanilla ice cream*	78mg / 60g average portion



## Non-dairy Sources of calcium

Food	Calcium content per individual serving
Sardines, canned in oil, drained	550mg / 100g 1 small can
Sardines, canned in tomato sauce*	460mg / 100g 1 small can
Pilchards, canned in tomato sauce*	165mg each
Spinach, boiled	120mg / 75g average serving
Brazil nuts	95mg / 56g serving
Curly Kale, boiled	113mg / 75g average serving
Sesame seeds	80mg / 1 tablespoon (12g)
Oranges	75mg / medium

\*Check the Coeliac UK Gluten-Free Food and Drink Directory for suitable brands

## Activity 3

Remember, some prescribable gluten free foods are fortified with calcium. Check the nutrition information panel on the packets and write down how much calcium is found in each product:

Product	Amount of calcium?



# Activity 4

## Do you eat enough calcium?

Using the information given below, work out your own calcium intake and check to see if it is adequate.

Comment below on your intake and if it is low how could you increase it?

Count up the number of times per day you have:

tea with milk	<input type="text"/>	x 40mg =	<input type="text"/>
coffee with milk	<input type="text"/>	x 50mg =	<input type="text"/>
glass of milk	<input type="text"/>	x 250mg =	<input type="text"/>
milk with cereal	<input type="text"/>	x 140mg =	<input type="text"/>
slices of white or brown bread	<input type="text"/>	x 30mg =	<input type="text"/>
slices of wholemeal bread	<input type="text"/>	x 10mg =	<input type="text"/>
portions of cheese	<input type="text"/>	x 320mg =	<input type="text"/>
portions of cottage cheese	<input type="text"/>	x 50mg =	<input type="text"/>
portion of ice-cream, yoghurt, milk pudding	<input type="text"/>	x 100mg =	<input type="text"/>
<b>Total</b>		=	<input type="text"/>
<b>Calcium intake/day (mg calcium)</b>		=	<input type="text"/>
<b>Recommended Daily Allowance (RDA) for calcium</b>		=	800mg

**Recommended daily intake of calcium for customers with coeliac disease 1000-1500mg**

Comments: (remember, if you don't consume many dairy foods, you can include non-dairy sources of calcium in your calculation, see pg 11 for ideas).



The British Society of Gastroenterology make the following recommendations for reducing the risk of fractures in those suffering from coeliac disease<sup>4</sup>:

## General Advice

- Adhere to a strict and nutritious gluten-free diet.
- Ensure an adequate dietary calcium intake.
- Frequent weight bearing exercise.
- No smoking.
- Avoid excessive alcohol intake.
- Offer a bone scan (DEXA scan) to those at higher risk of osteoporosis and provide appropriate treatment if indicated.

Good weight bearing exercises include stair climbing, jogging, jumping or skipping and dancing.

## Activity 5 Case Study

### Remember Evelyn our case study from Learning Unit 1?

Evelyn returns to the pharmacy after a local Coeliac UK group meeting to pick up her prescription. One of the other ladies she met at the meeting has recently broken her wrist and was subsequently diagnosed with osteoporosis. Evelyn has heard that calcium is important and asks:

1. Do you think I need to have more calcium in my diet? What should you do?



## Notes



# Section 3

## Anaemia

### Definition and symptoms

Anaemia is defined as a lowered concentration of haemoglobin in the blood. The normal range for haemoglobin concentration in the blood is 13.5-17.5g/dl for men and 11.5-15.5g/dl for women.

Haemoglobin is responsible for carrying oxygen in the red blood cells through the body. We need oxygen to allow the cells of the body to work. Iron is an essential component of haemoglobin and when we cannot absorb enough iron the red blood cells cannot be produced in sufficient numbers to fulfil the body's needs. Iron deficiency is the most common cause of anaemia with reduction in production of red blood cells when the body's reserves of stored iron are depleted.

Patients suspected of suffering from anaemia should be referred to the pharmacist for more advice.

The symptoms of anaemia are listed below and its presence necessitates investigation to determine the cause. This may be either:

- A loss of blood through internal or external bleeding.
- A malignancy.
- Heavy menstrual bleeding.
- Bleeding from the gastrointestinal tract (ulcers, Crohn's disease).
- From malabsorption of iron through disorders which affect the replenishment of the iron stores in the body. This malabsorption can be caused by coeliac disease.

In a patient with coeliac disease a reduced absorption of iron often results in the symptoms of anaemia.

Symptoms include:

- Fatigue (tiredness).
- Weakness.
- Headaches.
- Apathy (lack of feeling or emotion, indifference).
- Pallor (paleness of the skin).
- Poor tolerance to cold.
- Pica (a strange condition seen in some iron deficient customers which manifests as an appetite for non-nutritious substances).







## Activity 6

Do you know or have you known anyone who has suffered from anaemia?

What were their symptoms?

Anaemia is one of the most important indicators of coeliac disease. The prevalence of coeliac disease in patients with iron-deficiency anaemia is reported to be between 2.3 and 15%<sup>7</sup>.



## Dietary iron

As a pharmacy technician, you can identify customers who are purchasing iron supplements. How many who have long term iron deficiency have been tested for coeliac disease? You may want to chat with your pharmacist about how to identify these customers.

It is important to emphasise the need to adhere to a gluten-free diet for those customers already diagnosed with coeliac disease to maximise iron absorption. Often obtaining an adequate intake of iron from diet is not enough to correct a profound lowering of the iron stored in the body and iron tablets are prescribed.

## Sources of dietary iron

Good	Medium	Poor
Liver, red meat, pulses (peas, beans), tofu, iron fortified breakfast cereals	Poultry, fish, green vegetables, dried fruit	Cows' milk, cheese, yoghurt, tomatoes, carrots, potatoes, celery, cucumber, fruit. (These foods do provide other essential nutrients).

### Remember

Vitamin C aids iron absorption, so to maximise iron uptake foods rich in vitamin C should be included at the same meals. Foods rich in vitamin C are fruit, fruit juices and vegetables.



## Activity 7

A. How many customers have you visiting your pharmacy with a history of anaemia?

B. What should you discuss with them?

C. When should you refer to the pharmacist?



# Notes



# Section 4

*This section should be discussed with your Pharmacist.*

## Malignancy (Cancers)

### Introduction

Malignancy is probably the best documented and most serious complication of coeliac disease. Although not as common as previously thought, patients with coeliac disease do develop some types of cancer more often than people without the condition. The most common types are non-Hodgkin's and Hodgkin's lymphoma and small bowel cancer<sup>7</sup>.

**It is important to support customers who have questions about this subject and it would be good to chat this section through with your pharmacist.**

### What is lymphoma?

- The lymph system consists of thin vessels that branch throughout the body. They carry colourless fluid called lymph that is a vehicle for the white blood cells (lymphocytes).
- Throughout the system are small organs called lymph nodes. Cancer of the tissue that makes up these lymph nodes is called lymphoma.
- Lymphoma is classified into two types. The types are classified as either Hodgkin's disease or Non-Hodgkin's lymphoma.

Any patient with coeliac disease who reports a change in their symptoms especially in bowel habit should be referred to the pharmacist or GP for further advice.

### Protective effect of a gluten-free diet

Research has shown those who follow a gluten-free diet for 5 years or more have an overall cancer risk that is not significantly higher than the general population<sup>8</sup>.

Take some time to chat with your pharmacist about how you can both offer support to customers with coeliac disease who ask about the risk of cancer.



## Activity 8

As part of their assessment your pharmacist will have prepared a *Pharmaceutical Care Plan* for a patient with coeliac disease to encourage compliance with a gluten-free regimen. Have a chat about how you can contribute to this.

*Hints:*

*Wide variety of foods, encouragement to try new foods and recipes, offer contact details of other sources of information, check that customers know how to refresh their gluten-free bread*



## Notes



## Section 5

### Other health problems associated with coeliac disease

#### Infertility

As a pharmacy technician you are well aware of the importance of folic acid before and during pregnancy. This is particularly important for customers who have coeliac disease as their absorption of many vitamins and minerals may be impaired.

In addition, clinicians should consider offering serological testing for coeliac disease to people who have a history of recurrent miscarriage or unexplained subfertility. Fertility problems, sexual dysfunction and obstetric complications are more frequently observed in customers with coeliac disease<sup>9,10</sup>.

Emphasise again the role of a strict gluten-free diet (with the addition of extra folic acid) in those customers with coeliac disease who you know are wishing to conceive.

#### Dermatitis herpetiformis

Dermatitis herpetiformis affects 1 in 10,000 of the UK population. The condition is more common in men than in woman and most commonly appears between the ages of 15 and 40 years<sup>11</sup>.

The disease presents as patches of itchy red blisters on the skin. The small intestine is damaged in 80% of cases although many people do not complain of gastrointestinal symptoms. This could be due to mild or patchy gut damage. Customers with dermatitis herpetiformis have a similar risk of developing some types of cancer as those with coeliac disease. All patients should therefore follow a strict gluten-free diet.

Treatment with a gluten-free diet will be effective in most cases, but it may take up to 6 months for any results to show. First line treatment is with medication, which is gradually reduced as the patient responds to the absence of gluten in the diet.

#### Lactose intolerance

Lactose (milk sugar) intolerance arises from a shortage of the enzyme lactase. Lactase is produced by the cells that form the lining of the small intestine. The absence of lactase renders the gut unable to digest lactose.

Secondary lactase deficiency may occur in coeliac disease as a result of damage to the delicate lining of the small intestine. With an appropriate gluten-free diet the lactase activity returns, although it may take some time for the enzymes to return to their normal level. Some customers will therefore benefit from both a gluten-free and lactose free diet. Advice from a state registered dietitian is vital to ensure that these patients continue to consume a balanced diet.

As we learnt earlier in this learning unit, an adequate intake of calcium is vital for people with coeliac disease, therefore a diet with no lactose, that potentially further reduces calcium intake, is a concern. Look back to the section on osteoporosis to refresh your memory about the recommended calcium intake.

Check the table on page 11 for non-dairy sources of calcium.





## Symptoms

Lactose intolerance exhibits itself within 1-2 hours after eating or drinking foods containing lactose. Symptoms include:

- Nausea.
- Cramps.
- Bloating.
- Flatulence.
- Diarrhoea.

## Points to remember

- Coeliac disease has a number of associated health complications which may require support and advice from various healthcare professionals.
- The risk of developing many of the medical complications associated with coeliac disease can be reduced or eliminated by following a strict gluten free diet.
- The calcium requirements of patients with coeliac disease are increased and maintaining an adequate calcium intake is vital for reducing the risk of osteoporosis in this group.
- A common sign of coeliac disease is anaemia. If the aetiology of the anaemia is unknown investigation for other medical conditions including coeliac disease should be considered.



## Section 6

### Frequently asked questions

This learning unit has been developed to allow you to understand the needs of customers with coeliac disease. To help you respond to customers questions we have compiled a list of frequently asked questions and of course the answers. If in any doubt, always refer customers to the pharmacist for advice on symptoms and treatments. Additional space has been left for you to add any other questions you're asked about on gluten-free foods. It can provide a useful *aide memoir*.

**Q** *Are all customers with coeliac disease liable to develop osteoporosis?*

**A** Coeliac disease reduces the absorption of calcium from the diet. It is important that adequate dietary calcium is consumed to protect against this potentially debilitating disease. Current recommendations suggest that people with coeliac disease should consume between 1000 and 1500mg calcium/ day. Post menopausal woman and men over 55 should aim for at least 1200mg/day. Where nutritional supplements are required to boost dietary calcium intake, these should be taken in divided doses to maximise absorption. In Activity 3 you looked at the gluten-free foods you can obtain that are calcium enriched.

**Q** *Is anaemia a common problem in coeliac disease?*

**A** Yes indeed. A very common first indicator in coeliac disease is iron deficiency anaemia. This is caused by reduced absorption of iron from the diet. Once the patient is stabilised on a suitable gluten-free diet stored iron is replenished and the anaemia resolves.

**Q** *Does coeliac disease lead to the development of a malignancy?*

**A** Patients who do not adhere to a gluten-free diet are more prone to malignancy. It is important for pharmacists and pharmacy technicians to be aware of their customers need for support in complying with a strict diet. Any change in gastrointestinal symptoms should prompt a referral for investigation.

**Q** *Can a patient with a diagnosis of coeliac disease have a "holiday" from a strict gluten-free diet?*

**A** No! It is important to adhere conscientiously to a gluten-free diet. This learning unit should have allowed you to develop an understanding of the problems that can arise with a less than strict regimen.

**Q** *A patient with coeliac disease asks your advice about dietary requirements as she wants to start a family.*

**A** You need to again emphasise the need for a strictly controlled gluten-free diet. There is also a need for an adequate folic acid intake. This patient should be referred to her GP and dietitian for appropriate monitoring and advice at the pre-conception stage if possible.

**Q** *Is coeliac disease a cancer?*

**A** NO! It is not. It is an auto-immune condition. There is an increased possibility of lymphoma but this can be reduced significantly by following a gluten-free diet.



# Notes



## Answers to activities

### Activity 1

The incidence of coeliac disease is 1 in 100 people. Many people may have no symptoms of the disease (silent coeliac disease) and would be diagnosed as a result of screening.

### Activity 2

The contents page will help you identify where in the learning unit these conditions are discussed. If you filled in the table before working through the unit you might want to go back and check your answers or add to them.

### Activity 3

Many specialist gluten free foods are fortified with calcium, look for the terms 'source of calcium' or 'contains calcium' on pack. The Glutafin range contains a number of calcium enriched products that you could use to help you complete this table. If you don't have any Glutafin packaging to hand you can check the calcium content of products on the website: [www.glutafin.co.uk](http://www.glutafin.co.uk) or call the customer services line: **0800 988 2470**

### Activity 4

Compare your calcium intake with recommended intakes. An intake of 500mg per day could for example be augmented to the RDA by including a low fat fruit yoghurt and a portion of curly kale (113mg) at dinnertime. Calcium is found in many foods, the boxes on pages 10 and 11 list good sources.

### Activity 5 - Case Study

Refer Evelyn to the pharmacist who will explain what osteoporosis is, why it is linked to coeliac disease and how a strict gluten-free diet and adequate calcium intake is important. He/she suggests Evelyn see her dietitian, but also tells her about calcium enriched gluten-free foods. You can give Evelyn the contact number for the National Osteoporosis Society, Coeliac UK and the Glutafin Careline - they all produce information on coeliac disease and osteoporosis.

### Activity 6

This activity asks you to reflect on any personal experiences of anaemia. Refer back to page 15 for a list of symptoms.

### Activity 7

Discuss this activity with your pharmacist.

### Activity 8

Discuss this activity with your pharmacist.



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## Useful Contacts

### Coeliac UK

Coeliac UK, 3rd Floor, Apollo Centre,  
Desborough Road, High Wycombe, Bucks HP11 2QW  
Coeliac UK Helpline: 0845 305 2060  
www.coeliac.org.uk

### National Osteoporosis Society

National Osteoporosis Society,  
Camerton, Bath BA2 0PJ  
helpline: 0845 450 0230  
www.nos.org.uk

### Dr Schär; our brands and services.

Dr Schär UK is the leading European manufacturer of gluten and wheat free foods. Our brands Glutafin (available on prescription) and DS Gluten Free (available in retail outlets) offers patients a combination of choice, quality and superior taste.

The Dr Schär Institute is a dedicated healthcare professional resource specialising in coeliac disease and gluten sensitivity. Our online and written resources, produced in collaboration with leading experts in the field, provide the latest information and training on the diagnosis and management of gluten related disorders.

#### Address:

Dr Schär Uk Ltd,  
Station Court,  
442 Stockport Rd,  
Warrington. WA4 2GW.

#### For medical and scientific support, healthcare professionals may visit:

www.drschaer-institute.com  
email: professionals@drschaer.com  
Tel: 0800 988 8470

#### For product information, technical advice, recipes and patient support relating to our prescription products, visit:

www.glutafin.co.uk  
email: glutenfree@glutafin.co.uk  
Tel: 0800 988 2470

#### For product information, technical advice, recipes and patient support relating to our retail brand, visit:

www.dsglutenfree.com  
info@dsglutenfree.co.uk  
Tel: 0800 954 1981

#### My local Dr Schär UK contact is:

Name:

Contact Number



## Assessment

Using the knowledge you have gained from this unit complete the following assessment.

You have been asked by your pharmacist to prepare bullet points for a one-page fact sheet on Osteoporosis and Coeliac Disease. These will be given to customers with coeliac disease who visit your shop.

You should cover the following topics.

- Description of osteoporosis and what signs might be seen first.
- Who is likely to suffer from the disease and why.
- Why calcium and vitamin D are important in osteoporosis.
- What this means for those customers who have been diagnosed with coeliac disease.
- Sources of calcium rich foods in the diet and calcium enriched gluten-free foods.
- Any other general advice and sources of information.

Please return this completed module by email to [professionals@drschaer.com](mailto:professionals@drschaer.com) or print and post to the Dr Schar Institute, Dr Schär UK, Units 1-2 Station Court, 442 Stockport Road, Thelwall WA4 2GW

A certificate of completion can then be issued to you.



# Notes





## Evaluation Form

To enable us to meet your continuing education needs in future resources would you mind taking a few moments to complete this evaluation form. Please place a tick on the line at a point, which most represents your opinion.

For example:

I would rate my own Continuing Professional Development as being

<b>1</b> Not Important	<b>2</b>	<b>3</b> Fairly Important	<b>4</b>	<b>5</b> Very Important
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1. Was this learning unit appropriate to your professional development needs?

<b>1</b> Not very appropriate	<b>2</b>	<b>3</b> Appropriate	<b>4</b>	<b>5</b> Very appropriate
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2. Will what you have learned from this module help you in your clinical practice?

<b>1</b> Not at all	<b>2</b>	<b>3</b> Some of it will	<b>4</b>	<b>5</b> Definitely
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3. How did you enjoy working through this learning module?

<b>1</b> Did not enjoy	<b>2</b>	<b>3</b> No strong feeling	<b>4</b>	<b>5</b> Really enjoyed
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4. Was the support you received in completing this learning module adequate?

<b>1</b> Insufficient	<b>2</b>	<b>3</b> Adequate	<b>4</b>	<b>5</b> Just right
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Please complete the following and return by email to [professionals@drschaer.com](mailto:professionals@drschaer.com) or print and post to the Dr Schar Institute Dr Schär UK, Units 1-2 Station Court, 442 Stockport Road, Thelwall WA4 2GW

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No

## Thank you.

**DrSchär**  
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