THE PROFESSIONAL
ASSISTANT
LEARN & ADVISE

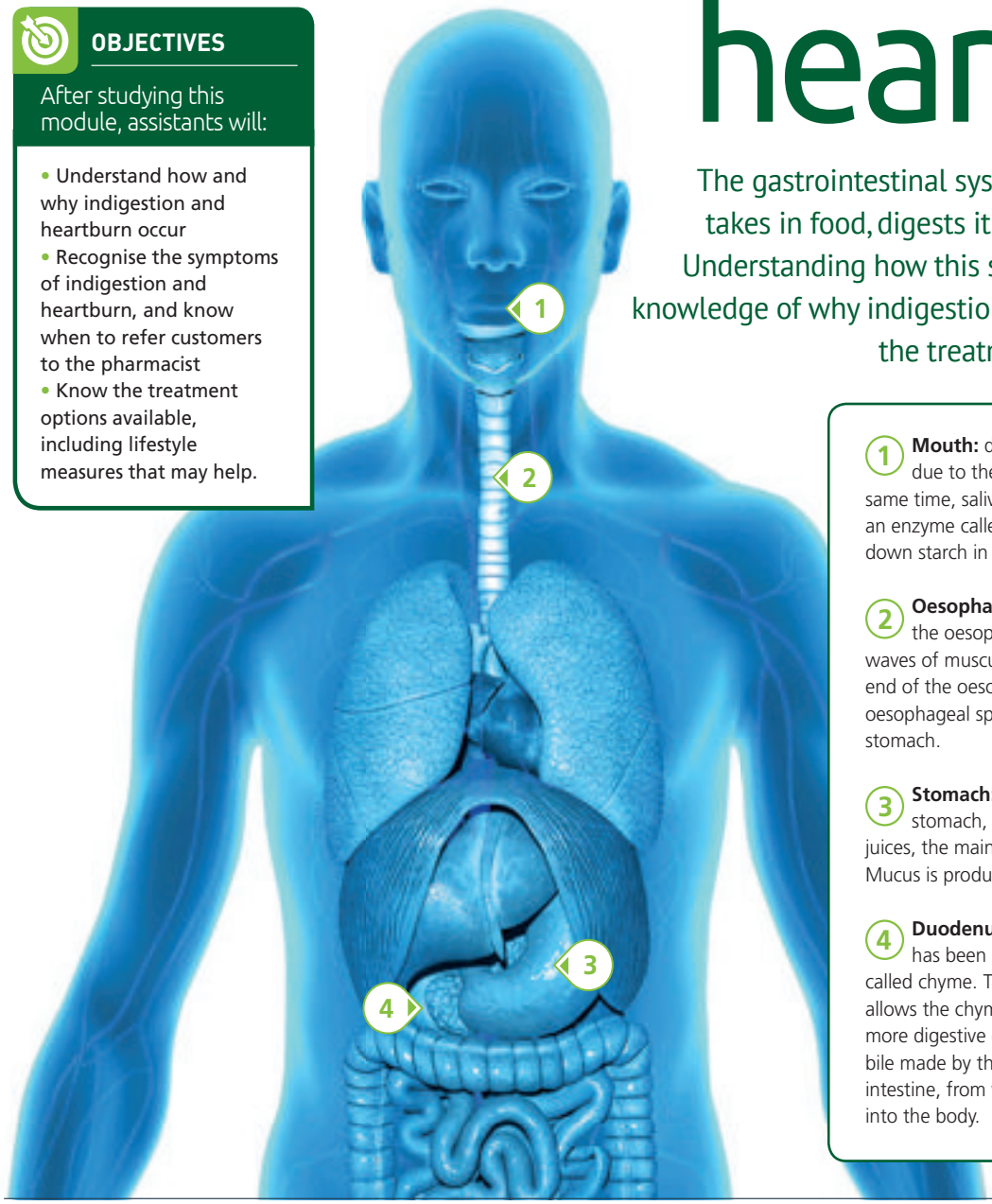
MODULE 21: JANUARY 2017

Indigestion and heartburn

OBJECTIVES

After studying this module, assistants will:

- Understand how and why indigestion and heartburn occur
- Recognise the symptoms of indigestion and heartburn, and know when to refer customers to the pharmacist
- Know the treatment options available, including lifestyle measures that may help.



The gastrointestinal system is the part of the body that takes in food, digests it and expels the waste products. Understanding how this system works will increase your knowledge of why indigestion and heartburn occur, and how the treatment options relieve symptoms.

1 **Mouth:** digestion starts the moment food is eaten, due to the mechanical action of chewing. At the same time, salivary glands release saliva, which contains an enzyme called salivary amylase. This helps to break down starch in a process known as chemical digestion.

2 **Oesophagus:** after swallowing, food passes into the oesophagus and travels downwards, aided by waves of muscular contractions called peristalsis. At the end of the oesophagus is a ring of muscle called the lower oesophageal sphincter. This marks the opening to the stomach.

3 **Stomach:** food continues to be broken down in the stomach, this time because of the action of gastric juices, the main components of which are acid and pepsin. Mucus is produced to protect the lining of the stomach.

4 **Duodenum:** after one to two hours, the food that has been eaten has been turned into a thick liquid called chyme. The pyloric valve of the stomach opens and allows the chyme into the duodenum, where it mixes with more digestive enzymes, this time from the pancreas, and bile made by the liver. This mixture passes into the small intestine, from where most of the nutrients are absorbed into the body.

This module is suitable for all members of the pharmacy team who wish to increase their knowledge of common conditions, treatment options and self care advice. This module has been endorsed with the NPA's Training Seal as suitable for use by pharmacy teams as part of their ongoing learning. This module can also form part of your Team Tuesday training.

Understanding the problem

Indigestion and heartburn

Indigestion – usually referred to by doctors as dyspepsia – occurs when acid comes into contact with the lining of the digestive system. Heartburn is caused when acid leaks upwards into the oesophagus, which is uncomfortable because the oesophagus does not have the same protective lining as the stomach. There are many reasons why these two conditions might occur. These include:

- Pregnancy hormones can slow down the digestive process, and the growing baby often puts pressure on the stomach, pushing its contents upwards
- Weakness of the lower oesophageal sphincter, which normally keeps the contents of the stomach where they're meant to be, and is the cause of gastro-oesophageal reflux disease (GORD)
- Lifestyle factors play a significant role. Being overweight, drinking alcohol, smoking, stress and anxiety can all cause symptoms, as can having a poor diet, either because of the type of food that is being eaten (e.g. fatty foods) or the speed at which it is being consumed
- Some medicines can cause indigestion as a side effect. The most common culprits are NSAIDs such as ibuprofen and aspirin, but many drugs list indigestion as a possible adverse reaction in their patient information leaflets
- Ulcers are erosions of the lining of the stomach or duodenum. Causes include an infection with the Helicobacter pylori bacteria or NSAID use.

In many cases, more than one factor will be at play. For example, someone may be overweight as a result of frequently eating meals with a high fat content, which in turn has caused them to develop GORD.

Symptoms differ from person to person, but discomfort is usually a feature. If this is experienced in the chest, it is referred to as heartburn, whereas pain slightly lower down may be referred to as indigestion. It is worth checking what customers mean when they use these terms, as they mean different things to different people. Other symptoms may include nausea, feeling bloated or full, belching and bringing up food into the oesophagus (regurgitation).

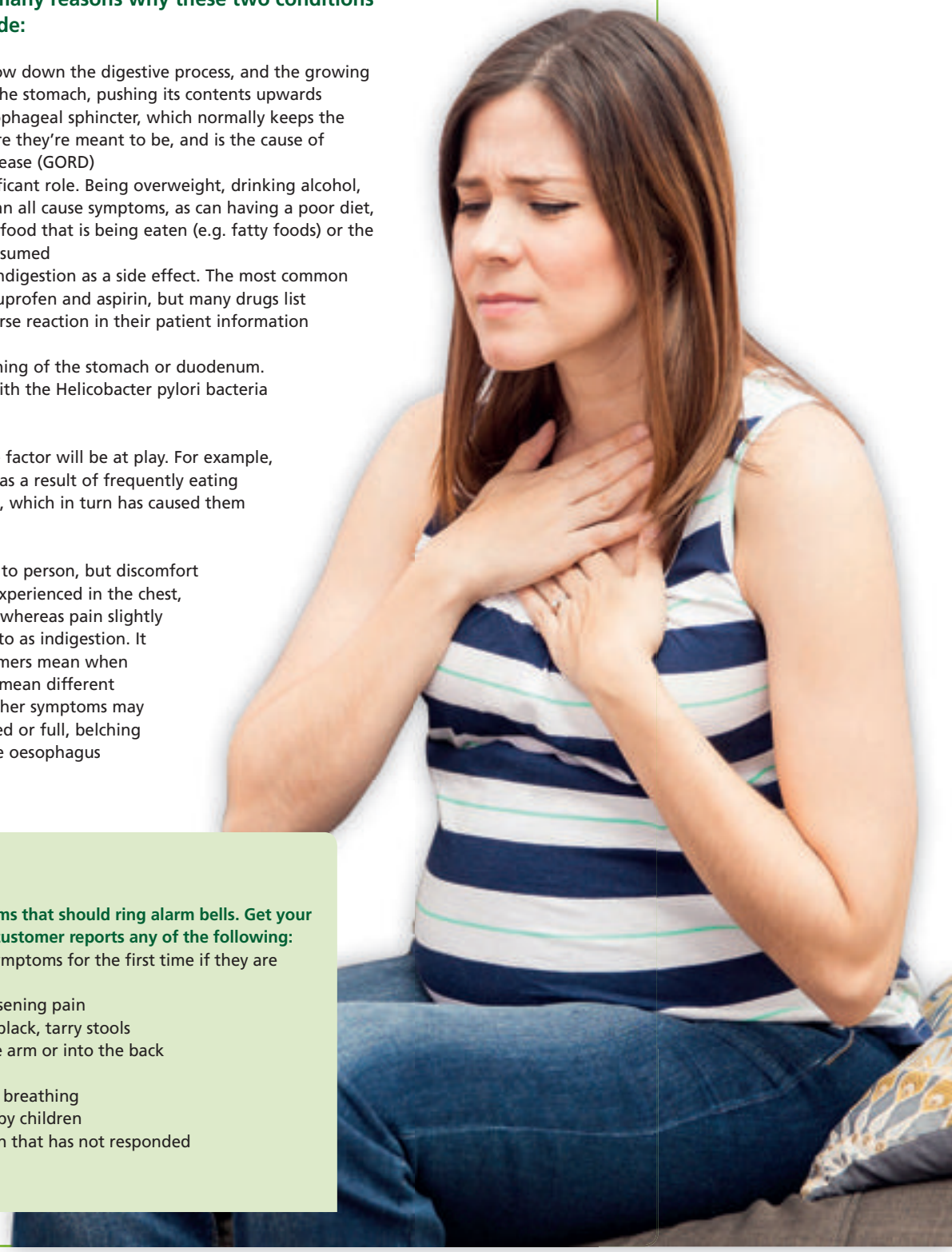
When to refer

There are certain symptoms that should ring alarm bells. Get your pharmacist involved if a customer reports any of the following:

- Continual indigestion symptoms for the first time if they are aged over 55 years
- Severe, constant or worsening pain
- Blood-stained vomit or black, tarry stools
- Pain radiating down the arm or into the back
- Unexpected weight loss
- Difficulty swallowing or breathing
- Symptoms experienced by children
- Heartburn or indigestion that has not responded to OTC remedies.

DID YOU KNOW?

As many as four in 10 people are affected by heartburn and indigestion.



Treatment options

OTC remedies generally fall into two categories: products that neutralise excess acid (antacids), and those that reduce acid production (proton pump inhibitors and H2 antagonists). However, for someone who only suffers mild and occasional indigestion or heartburn, lifestyle changes may be enough to relieve symptoms and prevent future recurrences.

1 Lifestyle changes

Remember to be tactful when offering advice on combating indigestion, particularly if the root cause is likely to be some form of overindulgence. Here are some tips you can pass on:

- Try to identify and then avoid triggers. Keeping a diary may help
- Limit fried food, caffeine and alcohol
- Eat regular meals at a sensible pace
- Cut back smoking – ideally looking to give up altogether
- Lose weight if necessary
- Exercise regularly to improve muscle tone
- Symptoms that occur at night may lessen if the last meal of the day is eaten earlier. Propping up the head and shoulders while in bed, for example by using an extra pillow, can also help
- Relaxation techniques such as yoga and meditation can ease any stress
- If medication might be an issue, discuss changing how it is taken or the drug itself with a pharmacist or doctor. For example, taking some medicines after food lessens the chance of them irritating the stomach.

2 Antacids and alginates

Antacid remedies often contain several different ingredients and are generally considered first line treatment, after or alongside lifestyle changes. Aluminium and magnesium salts frequently form the base of these products, sometimes in combination so the respective side effects of constipation and diarrhoea cancel each other out. Antacids can react with other medicines, so make sure to ask customers if they are taking anything else when recommending or selling such products.

Alginates, sometimes called rafting agents, are commonly recommended for their ability to form a layer that sits above the stomach contents and stops them leaking into the oesophagus.

Liquids have a quicker effect than tablets (which should always be sucked or chewed rather than swallowed), and all products are best taken about an hour after eating, rather than immediately.

OTC examples include Gaviscon Advance, Bisodol and Rennie. Some products contain both an alginate and an antacid (e.g. Gaviscon Double Action).

3 Proton pump inhibitors and H2 antagonists

If antacids haven't resolved the symptoms, an acid-reducing agent may help.

The proton pump inhibitors (PPIs) omeprazole, esomeprazole and pantoprazole block acid release in the stomach. They are effective and start to suppress acid production within one to two hours of taking the first dose, but two to three days' treatment may be needed for the full benefit to be felt. OTC examples include Pantoloc Control and Nexium Control.

H2 antagonists such as ranitidine reduce stomach acid production and give up to 12 hours' relief. They can be taken as soon as symptoms start and some can be used as a preventative measure – for example, if someone is going for dinner and knows that they will be eating rich food, which is likely to cause symptoms.
OTC example: Zantac 75 Relief.

All OTC acid-reducing medicines should not be used long term, and there are various restrictions regarding their sale. Check packs carefully when recommending or selling these products to customers.

DID YOU KNOW?

Avoiding eating for three to four hours before going to bed can help prevent indigestion at night.

SIGNPOSTING

For more information, you can:

- Use your *Counter Intelligence Plus* training guide
- Visit NHS Choices: nhs.uk/conditions/indigestion and nhs.uk/conditions/Gastroesophageal-reflux-disease
- Update your knowledge on indigestion and heartburn in pregnancy by visiting NHS Choices: nhs.uk/conditions/pregnancy-and-baby/pages/indigestion-heartburn-pregnant.aspx
- Look at information provided by the digestive diseases charity Core: corecharity.org.uk
- Read the NICE guidance on GORD at: nice.org.uk/guidance/qs96.

TEST YOURSELF ONLINE

GOOD PRACTICE KNOWLEDGE IS IMPORTANT WHEN ADVISING CUSTOMERS

Questions

1) What is salivary amylase?
a) Starch
b) An enzyme
c) An acid
d) A component of bile

2) Which statement is TRUE in relation to indigestion and heartburn?
a) Smoking has no impact on indigestion
b) NSAIDs such as ibuprofen can help to reduce stomach acid
c) An infection with the bacteria Helicobacter pylori can result in a stomach ulcer
d) Pain that radiates down the arm is common in heartburn

3) Which of the following is NOT a customer that you would refer to the pharmacist?
a) A 42-year-old woman with unexpected weight loss
b) A 10-year-old child with heartburn
c) A 34-year-old male who is regurgitating food and acid into his oesophagus
d) A 73-year-old who is suffering from daily episodes of pain in the stomach for the first time

4) Which of the following is an antacid?
a) Sodium alginate
b) Aluminium hydroxide
c) Ranitidine
d) Esomeprazole

5) Which of the following advice would you give to someone affected by indigestion, particularly in the evening?
a) Symptoms can be relieved by eating later in the evening
b) A couple of glasses of wine to help relax before bed will help to prevent symptoms
c) Sleeping without a pillow can help
d) Keeping a food diary to identify and then avoid triggers, such as spicy or fatty food, can help

6) How long does it take for proton pump inhibitors to start reducing acid production?
a) One to two hours
b) One to two days
c) Three to four hours
d) Three to four days

Scenario

Anya is in her 30s and comes into the pharmacy to get some advice. She explains that she gets a burning sensation around her breastbone area after eating and at night.

What would you recommend?

For each part of this scenario, think about the decision you would make and, importantly, why you would choose that option. In addition, for each decision that you make, think about how you would talk to the customer and provide the necessary advice. Discuss this with your team and pharmacist.

1. Discuss the symptoms and potential triggers of heartburn
2. Refer her to the pharmacist.

What if?
Anya says that she has tried an antacid tablet before, but it wasn't very effective.

1. Recommend a liquid antacid.
2. Recommend a liquid alginate and antacid combination.
3. Refer her to the pharmacist.

What if?
Anya mentions that she takes ibuprofen regularly for her back pain.

1. Recommend that she takes paracetamol instead.
2. Refer her to her GP.
3. Refer her to the pharmacist for a more in-depth consultation.

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