13. COMMON PROBLEMS



Gwyneth Paltrow went gluten free, and said it made her feel less stressed. But nutritionists say you shouldn't cut out an important food type without the advice of a medical professional.

OVERVIEW

In this module, we will cover the following topics:

- The identification of common dietary problems
- Common digestive problems
- Allergies and intolerances
- Gluten free diets
- Dairy free diets
- Other intolerances
- Diabetic diets
- Superfoods: Buckwheat and foods containing quercetin

INTRODUCTION

A healthy, balanced diet is one that includes all of the nutrients, minerals and calories needed to ensure proper physiological performance. Yet, sometimes genetics, disease, infection or environment impact the body's normal functioning in a way that alters nutritional needs.

In these circumstances, a nutritional advisor is integral to returning an individual to proper health and maintaining the balance of necessary nutrients while addressing specific dietary needs.

THE IDENTIFICATION OF COMMON DIETARY PROBLEMS

Dietary problems can come from many different causes and often must be completed under the eye of a qualified doctor, particularly when serious conditions such as severe allergic reactions are concerned.

However, once the specific problem is identified, dietary advice is often the only treatment necessary and many individuals with dietary problems will need ongoing contact with a nutritional advisor to ensure continued good health.

COMMON DIGESTIVE PROBLEMS

As a nutritional advisor you are likely to be consulted about digestive disorders on a regular basis. It's useful to take each area of the digestive system and look at the problems that are likely to occur.

It's important to remember that the GI tract is basically a long tube and problems which start in one area can affect other areas.

For example, if someone is not producing enough stomach acid and therefore does not digest their food properly this can lead to undigested food particles entering the small intestine and colon where they may ferment and produce wind and gas along with other problems such as dysbiosis which will be discussed later.

OESOPHAGEAL PROBLEMS

The oesophagus is the tube that connects the mouth to the stomach. Common problems in this area include **heartburn**, **reflux** (or gastrointestinal oesophageal reflux disease (GERD) as it is commonly known), and **hiatus hernia**.

Heartburn is a resulting symptom of the latter two conditions, although it may be experienced also after an unusually heavy fatty meal in a normally healthy individual.

Heartburn consists of a burning sensation in the chest and stomach that may radiate into the neck, caused when HCL is regurgitated back into the oesophagus. This action is known as reflux and is common in those with a hiatus hernia. A malfunctioning lower oesophageal sphincter can also cause this problem.

STOMACH DYSFUNCTIONS

HYPERACIDITY/HYPERCHLORHYDRIA

Hyperacidity occurs when the parietal cells in the stomach produce too much gastric acid (HCL). Overconsumption of fatty foods can contribute to this problem. Symptoms of hyperacidity can often be relieved via dietary changes e.g. less fatty foods, more frequent small meals etc, and also by exercise. However, it is important to have the cause of the problem diagnosed. This is generally done via a variety of tests carried out by doctors.

HYPOACIDITY/ HYPOCHLORHYDRIA

This term refers to the under-secretion of HCL (gastric acid), which is estimated by some researchers and practitioners to be far more common than hyperacidity. Surprisingly the symptoms are often similar, for example:

- Heartburn
- Digestive discomfort
- Bloating
- Belching

- Diarrhoea
- Constipation
- Vomiting of undigested food

Often these symptoms are seen with the common stomach infection helico bacter pylori. This infection needs medical diagnosis and treatment.

HELICOBACTER PYLORI INFECTIONS AND STOMACH ULCERS

Helicobacter pylori is a spiral shaped bacterium which infects the stomach lining by burrowing into the mucosal layer that protects the stomach lining from destruction by gastric acid. It is a common infection; about ¹/₄ of the UK population is thought to be infected.

Many infected subjects are asymptomatic, and therefore may not realise they are infected. As symptoms of infection are common, wide-ranging and variable, this may also lead to many undetected cases.

Common symptoms may include:

- BelchingStomach pain
- Heartburn
- Bloating

Some patients report a gnawing feeling in their stomach and constant hunger even after eating a nutritious meal.

Vomiting

H. pylori is now recognised as being the main cause of stomach and duodenal ulcers. It is not understood exactly how the infection causes the stomach ulcers, but it is thought that the stomach lining is exposed to gastric acid as the protective mucosal layer is disturbed and this leads to damage and ulceration.

H. pylori needs to be diagnosed by a medical practitioner. Several tests are used for diagnosis. These are breath tests, blood tests and stool analysis.

One common change resulting from H. pylori infection is a more alkaline environment. This is because the bacteria convert the urea present in the stomach into an alkaline chemical which they use as protection from the gastric acid present in the stomach. Breath tests detect this alkaline environment and so confirm infection. Conventional treatment generally consists of a course of antibiotics and antacids. Natural treatments include:

- Slippery elm to soothe stomach mucosa
- Mastic gum to kill the bacteria
- Deglycyrrhized liquorice (liquorice which has had a harmful component removed) to help regenerate the cells of the stomach lining
- Manuka honey to heal the ulcers
- Cabbage juice is a traditional remedy used to heal the stomach lining

Exercise 13.1

Find out more about H. pylori and ulcers. Use the web links below:

- <u>http://www.helico.com</u>
- http://www.patient.co.uk/showdoc/23068756/

PROBLEMS RELATED TO THE SMALL INTESTINE AND COLON

Problems in these areas are remarkably common. Many people report bloating, wind and bowel irregularity and discomfort. It is really essential that you get your client to visit their GP to rule out any serious illnesses such as bowel cancer, particularly if blood is present in stools.

One common underlying problem is imbalance of gut bacteria. Our small intestine and colon house millions of bacteria, of different species and strains.

These are often known as the gut flora. These include beneficial bacteria which perform a variety of tasks and commensal bacteria which are usually harmless unless their growth gets out of hand.

PROBIOTICS

The most common forms of beneficial bacteria are lacto acidophilus and bifidobacteria. They are known as probiotics. You can find these in many live yoghurts. These bacteria perform the following vital tasks:

- Assist with the absorption and formation of some B vitamins and some forms of vitamin K and the absorption of some minerals.
- Ferment the indigestible fibre in complex carbohydrates to provide energy for the cells in the colon and produce more beneficial bacteria.
- Provide protective lining of the intestines which prevents invasion by harmful bacteria and other substances.

If the gut microflora gets out of balance, then health problems may result.

For example, harmful bacteria or yeasts may overpopulate the gut. This situation is known as gut dysbiosis. It may result in:

- Headaches Digestive symptoms Aches and pains throughout Cognitive problems the body Skin problems
- Fatigue

Food intolerances

GUT DYSBIOSIS

Gut dysbiosis may often lead to a situation known as 'leaky gut', whereby the gut lining becomes damaged and the gaps between the cells in the lining become larger allowing food particles and other harmful substances through into the body.

This situation is thought by many nutritional practitioners to be at the root of many food intolerances. This is because undigested food passing through the gut may set up immune reactions resulting in wide-ranging symptoms such as those listed above.

Leaky gut, or increased intestinal permeability to give it its medical term, is well recognised in alcoholism as the gut lining is destroyed by excess alcohol. However, a medical doctor may not recognise leaky gut related to dysbiosis or food intolerances.

As well as possibly contributing to the incidence of food intolerances, gut dysbiosis is thought by many practitioners to be a contributing cause to Irritable Bowel Syndrome (IBS) which is a very common problem.

Read this article: Irritable bowel syndrome <u>https://patient.info/digestive-health/irritable-bowel-syndrome-leaflet</u>

Much research is being carried out to identify the role of gut bacteria. The different species and strains have been linked to many conditions ranging from stomach upsets to obesity and heart disease. This is beyond the scope of this course, but a simple accessible text which outlines a lot of useful information is 'The Power of Probiotics' by Elmer, Mcfarland & Mcfarland.

Many factors are thought to contribute to dysbiosis including:

- Antibiotics and some other forms of medication
- Poor diet
- Stress

Although antibiotics are necessary and lifesaving in many situations they tend to kill good bacteria as well as bad bacteria. This can lead to imbalance.

Diets lacking in fibre may not provide enough fibre for the bacteria to ferment and grow. Also gut irritants such as caffeine, sugar and excess fat may disrupt gut flora and disturb the gut lining.

Stress has been shown to reduce beneficial gut flora.

Dietary strategies to manage and reduce dysbiosis include the addition of foods containing probiotics such as live yoghurts as well as prebiotic foods that support the growth of good bacteria. These are generally foods with good fibre content, such as:

- Vegetables Wholegrains
- Fruits Flax seeds

Supplements containing both probiotics and prebiotics are available. They are generally safe in most cases, but may need to be introduced gradually to the client as they may cause wind and GI upset at the start of supplementation.

Reducing caffeine, alcohol and stress is also beneficial.

Exercise 13.2
List three causes of dysbiosis.
1.
2.
3.
Answers can be found at the end of the module

FOOD ALLERGIES AND INTOLERANCES

Food allergies and intolerances are becoming increasingly common and many people seek advice from nutritional advisors.

There is a distinction between **food allergies** and **food intolerances**.

FOOD ALLERGY

With true food allergy the body produces elevated levels of the immunoglobulin IgE and subsequently histamine in response to ingestion of a specific food. This is the same immunoglobulin which becomes active in other non food allergies e.g. hay fever and dust mites.

IgE allergies result in more severe symptoms than intolerances. They are also likely to be more permanent.

The symptoms of a food allergy may include itching and swelling in the mouth, tongue and throat. Also common are:

Eczema and flushingVomiting and diarrhoea

- Coughing Runny nose
- WheezingSore and itchy eyes

Severe reactions may result in swelling of the tongue and restrictions in the throat, and swelling throughout the body. Breathing problems may ensue. This type of reaction is known as anaphylactic shock and requires urgent medical attention as it can be life threatening. Typical examples are peanut allergy.

Consequently, it's very important that IgE reactions are diagnosed in people with suspected food allergies. Doctors can perform tests for IgE reactions. This may involve a blood test or a scratch test.



FOOD INTOLERANCE

Non IgE mediated reactions to foods may involve other immunoglobulins such as IgG or enzymes deficiencies as in lactose intolerance.

As explained in the section above, some food intolerances are thought to be due to a condition known as 'leaky gut', whereby the gut lining becomes damaged due to poor diet or gastro intestinal upset. This may lead to undigested food components travelling through the gut lining and setting up immune reactions.

Food intolerances may cause a wide range of symptoms and often involve delayed reactions.

Healing the gut lining by removing suspect foods that are thought to be causing the reactions and using probiotics such as live yoghurt may help in these instances.

Foods which commonly trigger allergies and intolerances include:

Cow's milk	
Eggs	Fish
Peanuts	Nuts
Soya	Shellfish

■ Wheat & gluten

Children can often outgrow food allergies and mild cases can be treated with antihistamines.

Food allergy and intolerance is a complex area and lots more research needs to be carried out.

There are many private testing companies that offer test for food allergies and intolerances. These vary in quality and price. Some companies conduct research to support their tests. If you are going to use a private testing company, research their tests thoroughly, call them up and ask for their scientific evidence to support their tests.

Other methods of intolerance testing include Vega testing and kinesiology, for which there is limited scientific evidence. These are separate subjects beyond the scope of this course. You may want to study them when you finish.

If you or your client has a suspicion of mild food allergies or intolerance you might suggest experimenting with elimination diets, where one individual food is restricted from the diet to determine whether symptoms clear up. This can be repeated for various different foods until the culprit, if there is one, is found.

For more information about allergies and intolerances read the information on this website: <u>http://www.allergyuk.org/</u>

Exercise 13.3

What are the differences between food allergies and intolerances?

Answers can be found at the end of the module

The following sections cover some common specific food allergies and intolerances.

GLUTEN-FREE DIETS

Coeliac disease is a common food allergy that can be treated by adapting a diet to avoid the consumption of gluten, the causative factor in coeliac disease.

Conventional medical tests used to diagnose coeliac disease may give false negatives unless the disease is well progressed. So if a client has persistent problems which you suspect may be related to possible coeliac disease, despite negative test results, it's best to refer to a specialist. For example a nutritional therapist or dietician who specialises in this area.

Recent research has identified a new condition known as non-coeliac gluten sensitivity. Again, specialist testing is required.

As many as 50% of coeliacs are also sensitive to dairy products.



COELIAC DISEASE

We briefly looked at Coeliac disease in an earlier module, you might want go back to revise it.

Coeliac disease is a disorder that occurs when the lining of the small intestine deteriorates upon contact with the protein gluten.

Given that the small intestine is the source of nutrient absorption, damage to the lining results in decreased nutrient absorption. Symptoms of coeliac disease include:

An itchy rash	Anaemia
Cramps	Irritability

Bloating
Weight loss as a result of poor nutrient absorption

There is no cure for coeliac disease. However, the disease can be managed through adherence to a strictly gluten-free diet.

REDUCING GLUTEN

Gluten is a protein found in wheat, rye and barley; the components of common flours which allow baked goods to maintain their form and avoid crumbling apart.

Flour is a common ingredient in many baked goods and a filler in many processed food products. So an individual following a gluten free diet must be extremely diligent in reading labels to ensure that foods that are consumed do not contain any gluten.

Individuals suffering from coeliac disease must find ways to supplement their diet with alternatives to many traditional grain products.

As flour is the main source of gluten in typical diets, you can use flour substitutes such as brown rice flour, sweet rice flour and rice polish.

Potato starch, corn flour, cornmeal, soya flour and whole bean flour are also options that can be used as a substitute for white and wholewheat flour. Combining flour and starch will improve the consistency of a glutenfree recipe, better mimicking the consistency of a gluten-containing product.

In keeping with the diligence that coeliac disease sufferers need to practise when preparing foods, it's important to be aware that gluten is sometimes included in foods that you would not expect to contain gluten.

Many foods with artificial flavouring and additives have gluten, such as:

Soups	Baked beans
Coffee substitutes	Flavoured yoghurt
Salad dressing	Chocolate milk

It is worth noting that coeliac's can have severe long lasting reactions to tiny amounts of gluten, so their food must be prepared in a gluten free environment. For example oats do not contain gluten, but are often processed in facilities which process gluten products, so are not generally considered to be a gluten free product.

It is possible to buy oats that have been processed in a gluten free environment. These will be specially labelled. At home and in restaurants, all utensils need to be gluten free e.g. chopping boards, knives and toasters cannot be used for foods containing gluten. This makes eating out quite difficult.

For more information on celiac disease go to this website: <u>http://www.coeliac.org.uk/</u>

Exercise 13.4

List the dietary sources of gluten.

Answers can be found at the end of the module

DAIRY FREE DIETS

DAIRY INTOLERANCE

Dairy intolerance is very common in the general population. Typically, the intolerance is related to a lack of the enzyme lactase, which breaks down the sugar lactose found in dairy products; this condition is known as lactose intolerance. This was discussed in module 3.

Milk protein intolerance is another common dairy intolerance and occurs when an individual has difficulty breaking down milk protein e.g. casein or whey; symptoms of milk protein intolerance include:

Bloating

Constipation

- Vomiting
- Cramps
- Diarrhoea

- Breathing problemsSkin problems
- Behavioural problems



DENTIFYING SOURCES OF DAIRY

Just as in gluten-free diets, people who suffer from dairy intolerance must be diligent about label reading. Dairy products are common ingredients in many products and recipes ranging from obvious sources such as milk and yoghurt, to less obvious sources such as ready meals, and even some condoms! When designing a dairy free diet it's important to identify the individual's needs, as a completely dairy-free diet may not be necessary.

Depending upon the severity of the intolerance, an individual might be able to digest small amounts of dairy products, yoghurt for example, in lactose intolerance.

Identifying precisely what the individual can and cannot eat allows you to set parameters and include foods that are nutrient dense to compensate for an overall lower dairy intake.

DAIRY SUBSTITUTES

Dairy products are an important source of:

Calcium	Potassium
Vitamin A and D	Thiamin
Protein	Pantothenic acid
Niacin	Folic acid
Riboflavin	Selenium
Zinc	Magnesium

Clearly, simply excluding dairy products from a diet would rob a balanced diet of many nutrients. It may be necessary to recommend a multi-vitamin to people who need to exclude dairy from their diet.

Due to the prevalence of dairy products in many food sources, substitution of products that serve the same purpose and contain some of the same nutrients is important in a dairy-free diet.

Cow's milk allergy/intolerance can be quite common. People with this kind of allergy or intolerance may be able to consume goat's or sheep's milk as a possible dairy substitute. This is because it behaves the same way as cow's milk in most recipes.

Goat's milk may have a higher fat content than cow's milk, however, so should not be the only dairy substitute included in a diet. Often skimmed versions of these milks can be bought. Soya milk, rice milk, coconut milk, and oat milk all work well in sauces, soups, desserts and as a cereal topper. There are also many commercial 'dairy free' products on the market that are engineered to behave as dairy but produce none of the symptoms of dairy intolerance.

Be diligent when reading these labels however, because many are heavily processed and often contain whey or casein, which will produce symptoms in people who are milk protein intolerant.

Also be aware that rice, oat and coconut milk do not contain much protein. However, those with thyroid problems may be advised to restrict their intake of soy due to its potentially goitregenic effects which could harm the thyroid. In this case an alternative should be found. Other choices include nut milks, e.g. almond milk and quinoa milk.

Incorporating foods that contain some of the nutrients found in dairy products is also important when designing a dairy-free diet. Broccoli, leafy green vegetables, nuts and sardines are all good sources of calcium, while eggs, fish and whole grains are sources of vitamin B2 and B12, vitamin A, and vitamin B1 respectively.

OTHER INTOLERANCES

Below are listed some common intolerances. However, as more processed products emerge for consumption, more chemical additives are developed to preserve them and add artificial flavour and colouring. These substances that are foreign to the body often produce ill effects that manifest as a food intolerance.

TYRAMINE INTOLERANCE

Tyramine is an amino acid like molecule (amino acids are the building blocks of protein) formed by the bacterial breakdown of the amino acid tyrosine.

This process happens naturally in the small intestine, where tyramine is neutralised before absorption. In tyramine intolerant people, this neutralisation fails to take place and they absorb amounts of tyramine that can be toxic. Symptoms of tyramine intolerance include:

Migraines	Rashes	Asthma
Hives	Wheezing	

Sources of tyramine include fermented cheeses, chocolate, sausage, some berries, and yeast products that have undergone fermentation such as beer. Avoidance of these foods will minimise the symptoms of tyramine intolerance, yet tyrosine is found in many protein sources, so an effort must be made to consume foods with detoxification capabilities when ingesting protein.

Foods that are capable of neutralising tyramine include onion, Brussels sprouts, garlic and broccoli.

MSG INTOLERANCE

MSG or monosodium glutamate, is a chemical additive that enhances the taste of food.

Although the existence of MSG intolerance is disputed, people who suffer from the condition claim to suffer from headaches, asthma attacks, discomfort, and in extreme cases; depression.

The controversy surrounding MSG intolerance is centred on the fact that there is a naturally occurring form of MSG that acts as a neurotransmitter safely within the body.

Why one form of MSG could blend with the body's physiology and another form produce intolerance is a source of medical debate that has held back progress in the treatment of MSG sensitivity.

However, ultimately the best way to avoid the symptoms of MSG sensitivity is to carefully read labels and avoid foods that contain MSG. As MSG is typically only found in heavily processed foods with little dietary value, simply not consuming foods with MSG is the best treatment.

DIABETIC DIETS

Diabetics are extremely sensitive to sugar levels in their diet, and as such, must maintain a very rigid diet to avoid spikes and drops in blood sugar level. This can trigger seizures, diabetic comas or even death. As carbohydrates are a primary source of sugar within the body, carbohydrate consumption must be closely monitored.

TYPE I DIABETIC DIET

People who suffer from type I diabetes do not produce enough insulin and must inject themselves daily to safely process carbohydrates. While insulin injections help to control blood sugar levels, Type I diabetics must still be diligent about what they consume.

As type I diabetes is an inherited condition, it isn't related to obesity in the way that type II diabetes is. Thus, the focus is on the type and quality of food rather than on weight loss.

People with Type I Diabetes usually receive dietetic advice from a state registered dietician. General advice is to eat a well balanced, low GI diet and to avoid high GI foods, takeaways and processed foods. Patients may also be introduced to a method of carbohydrate counting, so that they can keep their blood glucose and insulin levels under control

Many diabetics utilise a food exchange chart that breaks foods down into categories such as starches, fruit, meat and fats. These categories outline serving sizes from each group that contain the same proportion of carbohydrate, fat and protein. This makes meal planning easier, and allows the individual some freedom in their food selection.

TYPE II DIABETIC DIET

Type II diabetes is often brought on by obesity and poor lifestyle. So the focus is not only blood glucose control, but also weight management. In the early pre diabetic stages, some people can actually reverse/improve their condition with diet and exercise, so it's worth encouraging clients to aim for this if possible.

Again the emphasis should be on eating a low GI diet, avoiding sugary foods and drinks.

Too much dietary fat can also raise insulin levels, so encourage clients to avoid bad fats and focus on inclusion of good fats.

Some diabetics do well on a low carbohydrate diet, but be careful not to include too many fats as a replacement for carbohydrates.

There is also interest in the use of Intermittent Fasting or the 5:2 diet with type II diabetes. However research is still ongoing and it must be stressed that when working with a diabetic client, the doctor should always be involved in any dietary changes.

Certain nutrients can help the body use glucose better; e.g. omega 3 fats (from oily fish) help improve the cells sensitivity to insulin. Chromium, together with vitamin B3 and three amino acids is needed to make Glucose Tolerance Factor (GTF) which makes insulin more effective.

Read more about the dietary management of this condition at the links below.

http://www.diabetes.org.uk

http://www.diabetes.co.uk

SUPERFOODS TO HELP FIGHT ALLERGIC SYMPTOMS

Anyone with a chronic unaddressed allergy or food intolerance is likely to suffer from systemic inflammation. Symptoms are wide ranging and can include rashes, other skin problems, joint pain, fatigue and digestive problems.

Anyone with these conditions is likely to benefit from what is termed an anti-inflammatory diet; that is a diet high in foods that inhibit inflammation. These include most vegetables and fruits, fish, nuts, seeds and water.

Eating a diet high in anti-oxidants can help with allergies, so many of the foods already mentioned in previous sections are likely to be supportive. Good examples are berries which are high in OPCs.

Some vegetables and fruits have high levels of phyto-nutrients that can help prevent allergic symptoms.

One such phyto-nutrient is quercetin which is contained in apple skins, red onions, garlic, buckwheat, algae and green and black teas. Quercetin works by suppressing the production of histamine by the mast cells during an allergy attack.

BUCKWHEAT

This is actually not a cereal or a grain and is not related to wheat at all. However buckwheat is a grass whose flour can be used as a substitute for wheat flour. It contains eight amino acids, many minerals, vitamin A, B and C.

Buckwheat contains no gluten, so it is an excellent food for coeliacs, especially as it is far more nutritious than wheat. The Japanese eat buckwheat noodles and these can now be bought in health stores and some supermarkets.

Buckwheat pancakes are a traditional food in Brittany and Normandy in Northern France. They are delicious and make a very good breakfast for children and the whole family.

Buckwheat flour is easy to cook with and can be substituted for most wheat flour recipes. It has a slightly bitter taste.

BROWN AND WILD RICE

Brown rice is one of the most hypo-allergenic foods, that is, it is unlikely to cause allergic reactions. It is also very high in fibre and contains B vitamins and minerals. Basmati brown rice is lowest in the glycaemic index, so is better for blood glucose control.

Short grain brown rice is reported by some nutritional experts to have excellent detoxifying properties as it is thought to absorb and remove toxins from the gut.

Combined with beans and pulses, rice forms a complete protein, so is an excellent food for vegetarians and vegans.

REMINDER

Have you completed the following exercises?

- □ Exercise 13.1
- \Box Exercise 13.2
- □ Exercise 13.3
- Exercise 13.4

Tick each box when you have completed the exercises. Then you can move on to the assignment that follows.

SUMMARY

- 1. You should now have an understanding of the difference between a food allergy and a food intolerance.
- 2. You understand the severity of allergy symptoms in contrast to intolerance symptoms.
- 3. You are aware of the cause of coeliac disease, and what foods to eliminate from a gluten-free diet.
- 4. You understand that lactose intolerance is common and easily treated through dairy substitution.
- 5. You are aware that MSG and tyramine are also sources of food intolerance.
- 6. You understand that diet plays an important role in the prevention of diabetic symptoms in type I and type II diabetics.

TUTOR MARKED ASSIGNMENT FOR MODULE 13

IRRITABLE BOWEL SYNDROME

Greg has come to see you with persistent IBS symptoms. His GP has tested his digestive system but cannot find any problems. Greg is suffering from bouts of constipation, diarrhoea, bloating, wind and indigestion. It has got to the stage where he dreads eating anything.

Greg's lifestyle is very stressful and his diet is poor. He consumes a lot of caffeine, alcohol and regularly eats on the run between meetings. He has also taken a number of courses of antibiotics to clear up persistent sinus problems.

What is more Greg has recently noticed other reactions when he eats certain foods. For example, pasta can cause extreme bloating and sometimes he gets headaches and cannot concentrate after eating a lot of bread.

In this essay explain:

What do you think could be wrong with Greg and what dietary recommendations would you suggest? Why have you made these decisions?

You should include the following:

Identify what could be wrong with Greg and summarise his symptoms.

Describe how he could make changes to improve his health.

Consider alternative food choices.

When you have completed this assignment, send it to your tutor for marking. If you email your assignment, make sure you include your name and assignment number at the top of your work.

If you send the assignment by post, attach the cover sheet, which is on the following page.

ASSIGNMENT COVER SHEET

If you send your assignment by post, attach this cover sheet. Please put your name and the date in the arrowed boxes. Then staple the sheet to your assignment, and send it to your tutor.

Your tutor will keep the lower section of this form, returning the top portion to you.

If you email your assignment, you don't need to send this form, but make sure you include your name and assignment number at the top of your work.

Course	Diploma in Nutrition
Module number	13. Common Problems
Name	→
Student number	→
Date sent to tutor	→
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Date returned by tutor	
Mark	

Comments:

To be retained by tutor

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Course	Diploma in Nutrition
Module number	13. Common Problems
Name	→
Student number	→
Date sent to tutor	→
Date received by tutor	
Date returned by tutor	
Mark	

EXERCISE ANSWERS

EXERCISE 13.2

List three causes of dysbiosis.

Poor diet, stress and antibiotics.

EXERCISE 13.3

What are the differences between food allergies and intolerances?

An allergy involves a response by IgE immunoglobulins. Allergy symptoms are more severe than intolerances in general.

Intolerances may involve IgG immunoglobulins or other factors. Testing is less precise and symptoms may be less severe with a delayed response.

EXERCISE 13.4

List the dietary sources of gluten.

Sources of gluten include:

- wheat
- rye
- oats unless specifically grown and processed away from gluten products
- barley