

Chapter 1

Bigging It Up: The Huge Role of a Little Gland

In This Chapter

- ▶ Crunching numbers: The incidence of thyroid disease
 - ▶ Recognising signs, symptoms, and risk factors of thyroid disease
 - ▶ Appreciating your thyroid's hard work
 - ▶ Giving a sick thyroid some TLC
 - ▶ Pinpointing times of life that pose special risks
-

Your thyroid is a little like Victor Meldrew, who often doesn't get the respect he feels he deserves. Anyone who watches prime-time TV knows the importance of other body parts – the heart, lungs, and wedding tackle sure get a lot of press. But unless you come face-to-face with a thyroid problem, chances are you don't hear much about what this little gland does and its vital importance to good health.

The fact that you're reading these words suggests you've encountered a thyroid problem personally. Perhaps you've recently had a thyroid condition diagnosed. Or maybe your husband, wife, mother, or friend is receiving treatment for a thyroid problem. If so, you've probably found out at least a little about this mysterious gland, and now you're looking for answers to the obvious questions that keep popping up in your mind:

- ✓ What causes this condition?
- ✓ What types of symptoms are related to this problem?
- ✓ How is this condition treated?
- ✓ What are the consequences of leaving it untreated?
- ✓ Does treatment end the problem forever?
- ✓ What can I (or my husband, wife, mother, or friend) do to help get back to optimal health?

This book aims to answer most of your questions. As doctors and researchers are constantly discovering new things about the thyroid, however, the information here is only as complete as our current knowledge. But if you're looking for concrete information about how the thyroid functions, and what to do when a problem occurs, you're holding the right paperback.

Discovering the Extent of the Problem

Thyroid disease – which is the collective term used for medical disorders of the thyroid, the majority of which are covered in this book – is one of the most common conditions in the world. Research indicates that thyroid disease affects more than 200 million people around the globe. In the United Kingdom alone, an estimated 4.5 million people have a thyroid problem out of a population of around 60.5 million. And that's just the ones who are properly diagnosed; a further two million people are believed to have over or underactive thyroid glands that remain unrecognised, although these cases are often mild.

The *incidence* of thyroid disease (the number of new cases identified annually) becomes even higher when careful autopsies are carried out on people who did not die of a thyroid condition. As many as 60 per cent of the people autopsied are found to have growths on the thyroid, and 17 per cent have small areas of cancer that were not detected during life.

These numbers are statistics, but thyroid disease affects individuals. You'll be encouraged to know that many people in the public eye have gone on to great accomplishments after being treated successfully for thyroid conditions. Some of the people you may recognise include:

- ✓ Olympic gold medal-winning sprinter, Gail Devers, had hyperthyroidism, while runner Carl Lewis had hypothyroidism.
- ✓ Author Isaac Asimov had thyroid cancer at the age of 52 and went on to live a further 20 years, eventually dying at the age of 72 from unrelated causes.
- ✓ Singer Rod Stewart had surgery to remove a thyroid growth.
- ✓ World-class golfer Ben Crenshaw had hyperthyroidism.
- ✓ Former United States President George Bush, former first lady Barbara Bush, and even their dog Millie, had hyperthyroidism – an unusual clustering that prompted extensive investigation of their water supply, although no cause was ever found.

While this list is far from exhaustive, it helps to drive home the point that, if diagnosed and treated, thyroid conditions don't need to hamper your lifestyle.

Identifying an Unhappy Thyroid

Getting down to basics, your thyroid gland lives just below your Adam's apple, at the front of your neck. (Chapter 3 gives a more detailed explanation of how to find your thyroid.) If your thyroid becomes visible in your neck, if that area of your neck is tender, or if you have some trouble swallowing or breathing, consider visiting your doctor for a thyroid checkup. Any change in the size or shape of your thyroid may mean it's not functioning properly, while soreness or tenderness can mean you have an infection or inflammation (see Chapter 11). Sometimes, a thyroid develops a growth called a *nodule*, which despite its benign sounding name is always tested to rule out cancer (see Chapter 7).

As well as changes in the size and shape of the gland, people with a malfunctioning thyroid usually develop other associated symptoms.

- ✓ If your thyroid becomes underactive, a condition known as *hypothyroidism*, you tend to put on weight, feel cold, tired, slow down, and often a little depressed. Although this description doesn't sound very specific, and these symptoms can indicate any number of other physical problems, an underactive thyroid gland is a common enough cause to ask your doctor to check things out, especially if you are over the age of 35. Chapter 5 gives you the specifics about the causes and symptoms of hypothyroidism.
- ✓ If your thyroid function is too high, a condition known as *hyperthyroidism*, you may lose weight, feel hyper and warm, and notice that your heart tends to race. You may have trouble sitting still, and your emotions may change very rapidly for no clear reason. These symptoms are a little more specific than those for low thyroid function, but again, they can easily result from some cause not related to your thyroid. Chapter 6 offers a detailed look at hyperthyroidism.



The best way to determine whether a thyroid problem exists is to ask your doctor to check your thyroid function.

Recognising Who's at Risk

A few key facts help doctors determine whether thyroid disease is a strong possibility for a given patient:

- ✓ Thyroid problems are around ten times more frequent in women than men.
- ✓ Thyroid conditions tend to run in families.
- ✓ Thyroid problems often arise after the age of 30.

These findings don't mean that a 20-year-old man with no family history of thyroid problems can't develop a thyroid condition. They simply suggest that a 35-year-old woman whose mother was diagnosed with low thyroid function 20 years ago is at greater risk of having a thyroid problem than a young male. With this in mind, any young woman with a similar family history is wise to inform her doctor, as her GP is likely to test her periodically to ensure her thyroid function is normal.

Realising the Importance of a Healthy Thyroid

Your thyroid gland influences almost every cell and organ in your body because its main function is to regulate your metabolism. If your thyroid is functioning correctly, your *metabolic rate* (the amount of energy your body burns while resting) is normal. If your thyroid is working too hard, your metabolism is too high, and you may notice an increased body temperature or an elevated heart rate. When your thyroid function drops below normal, so does your metabolism; you may gain weight, feel tired, and experience digestive problems.

Chapter 3 details how your thyroid affects various parts of your body – in fact, just about everything – including your muscles, heart, lungs, stomach, intestines, skin, hair, nails, brain, bones, and sexual organs.



As if that weren't enough, the thyroid also affects your mental health. People with an underactive thyroid often experience depression, while those with thyroids that work too hard are often anxious, jittery, irritable, and unable to concentrate. The mental and emotional consequences of a thyroid problem are so important and so often misunderstood that Chapter 2 is devoted to exploring and explaining these topics.

Treating What Ails You

Depending on the specific thyroid problem you're suffering from, your treatment options can range from taking a daily pill to having surgery to remove part or all of your thyroid gland.

- ✓ **Underactive thyroid.** In the United Kingdom, many GPs manage the treatment of an underactive thyroid gland on their own. You may not need to see a specialist if your condition is well controlled.
- ✓ **Overactive thyroid.** A patient with an overactive thyroid gland is ideally referred to an *endocrinologist*, a specialist who dabbles daily in different

hormone problems. If your symptoms are causing difficulty while you're waiting to see an endocrinologist, your GP may start you on a beta-blocker treatment that damps down overactivity in the nervous system, which can reduce anxiety and sweating as well as reduce the risk of an abnormally fast heart rate.

✓ **Thyroid nodule.** If you have a thyroid nodule, your doctor is likely to refer you to a thyroid specialist clinic for further investigations.



Part I of this book discusses the details of treatment options, and gives information on which options are considered the best according to United Kingdom guidelines. But no matter what you read here (or anywhere else), always discuss your specific situation with your doctor. This book is designed to help you have more productive conversations with your doctor by explaining the pros and cons of each type of treatment and suggesting questions to ask your doctor if a treatment doesn't seem to work for you as an individual. It cannot, however, act as a substitute for your doctor, who knows all the ins-and-outs of your particular case.

In general, if you experience hypothyroidism (low thyroid function), you take a daily pill to replace the thyroid hormone that your body is lacking. Many people take this type of pill for the rest of their lives, but some people are able to stop taking it after a few years if lab tests prove the condition has righted itself. Chapter 5 discusses the treatment of hypothyroidism in more detail.

Three different treatment options exist for someone with hyperthyroidism (an overactive thyroid). You may take an antithyroid drug, receive a radioactive iodine pill to destroy part of your thyroid tissue, or undergo surgery to remove some or all of your thyroid gland. In the United Kingdom, most doctors recommend antithyroid drugs or radioactive iodine for hyperthyroidism. Surgery is now used much less frequently than in the past and is generally performed only when someone can't have one of the other two treatments. Chapter 6 goes into the specifics about each treatment and explains why your doctor may suggest one treatment over the others, depending on your specific situation.

For patients with thyroid cancer, surgery is often required to remove the whole gland. Radioactive iodine is sometimes also used to destroy any thyroid tissue that remains after the surgery. Chapter 8 discusses the treatment of various types of thyroid cancer.

Someone whose thyroid has nodules may need surgery, may not need treatment at all, or may need a type of treatment that falls between those extremes, such as thyroid hormone replacement or radioactive iodine. See Chapters 7 and 9 for all the details about how your doctor may deal with thyroid lumps and bumps.

Understanding the Consequences of Delaying Treatment

As many people with thyroid conditions are undiagnosed, and many die of other causes without ever discovering their thyroid problem, you may wonder whether the diagnosis and treatment of thyroid problems is really necessary.

In some situations, a thyroid condition is so benign or mild that you don't even notice any symptoms. For example, many people with thyroid nodules never have any other problems except for a little lump on their neck. In those mild cases, treatment is often unnecessary.

But for many other people, thyroid conditions are much more serious, having a significant impact on overall health and quality of life. The section 'Realising the Importance of a Healthy Thyroid,' earlier in this chapter, gives you a sense of some possible consequences of delaying treatment. If you have a low functioning thyroid that is left untreated, you may become so overweight, fatigued, and depressed that you have trouble just doing your daily activities. In contrast, with an overactive thyroid, you may experience significant weight loss, heart trouble, and extreme nervousness. And, of course, thyroid cancer is sometimes life-threatening if left untreated, depending on the type of cancer you have. And a thyroid with many nodules can become so enlarged or misshapen that it affects your ability to swallow or breathe properly.



Unless your symptoms are already extreme, only laboratory blood tests can determine whether treatment for your thyroid condition is really necessary, or not. Given how important this little gland is to your health, both physical and mental, most people are well advised to take any treatment their doctor feels is necessary for their wellbeing.

Giving Your Thyroid a Hand: Healthy Lifestyle Choices

So you or a loved one has a thyroid problem – what next? You start taking a prescription, or you undergo another type of treatment, and you wonder what other things you can do to help yourself along towards better health. Did you do something wrong that led to this problem in the first place? What changes can you make to your diet or lifestyle that will lead to a cure, or at least help improve your symptoms?

We wish we could just tell you that if you ate more wonga-wonga beans and got eight hours of sleep each night, your thyroid would return to perfect health. We could stop writing right now if that were the case. Unfortunately, the line between lifestyle choices and thyroid health isn't so straightforward. Your lifestyle definitely plays a role in your thyroid health, but lifestyle does not seem to cause thyroid conditions in the first place. If you are diagnosed with a hyperactive thyroid, for example, you most likely have the condition because you inherited a certain gene, or group of genes, as we discuss in Chapter 17. But if your life is full of stress, if you sleep only five hours a night, and if you drink lots of caffeine to get through the day, you definitely aren't doing your thyroid any favours. Poor lifestyle choices can aggravate the symptoms of your thyroid condition and making some positive changes to your eating, sleeping, and exercise habits means your thyroid definitely benefits.

In Chapter 15, we suggest how improving your diet, reducing your stress, exercising on a regular basis, and keeping a close eye on other aspects of your lifestyle can help to upgrade your thyroid health.

Paying Special Attention: Pregnant Women, Children, and Older People

Although a consensus statement by a group of British thyroid experts states that screening the healthy adult population for thyroid problems is unjustified, some doctors in the United States believe that everyone should have periodic tests to ensure his or her thyroid is working properly, especially after the age of 30 years. Certain groups of people also need to pay special attention to their thyroid function. Pregnant women, children, and the elderly have even more at stake than other folks when it comes to monitoring thyroid function, and Part IV of this book discusses these three groups in more depth.

Pregnancy has a big impact on a woman's thyroid, whether or not she had a thyroid condition prior to the pregnancy. If she does have a known thyroid condition, her doctor monitors it closely during pregnancy because her treatment is likely to need adjustment. And if she doesn't have a thyroid condition, she and her doctor should watch carefully for signs and symptoms of thyroid problems, which can sometimes appear as a result of the physiological changes she's experiencing.

Not only is a healthy thyroid crucial for the mother during pregnancy, but it's essential for the healthy development of her foetus as well. For details about what to watch for during pregnancy and the types of problems a thyroid condition can create for mother and child, see Chapter 18.

Chapter 19 discusses the importance of thyroid screening after the baby is born. Screening is carried out on all newborn infants because a healthy thyroid is essential for proper mental and physical development. If you're a parent of an infant or young child, take a look at Chapter 19 so you understand what the screening is for, what risks are involved for children of parents with thyroid disease, and how to reduce those risks.

The third group that should pay special attention to thyroid health are people aged 65 and over as the symptoms of a thyroid condition so often mirror symptoms of other ailments. If an older person is known to have a heart or blood pressure problem, a doctor may overlook a possible diagnosis of thyroid disease and attribute its symptoms to another condition. To confuse the issue even more, older people often experience symptoms that are the exact opposite of what is expected with certain thyroid conditions. For example, an older person with an underactive thyroid gland may actually lose weight (instead of gaining weight, which is normally expected), especially if he or she is depressed and loses interest in food.

The goal of this book is to help you preserve and defend your thyroid by telling you what you need to know and what to look out for no matter which stage of life you're going through. The more you know about the signs and symptoms of thyroid disease, the earlier you can alert your doctor to when thyroid function tests are a good idea.

Staying Informed

Doctors don't know everything, and general practitioners (GPs) cannot keep fully up-to-date when new discoveries and treatment breakthroughs are popping up all the time. Between writing this book and the time it's printed, for example, researchers will have carried out hundreds more studies and published new findings that might suggest, or prove something different about thyroid diseases and treatments that this book doesn't cover.



You can now stay on top of the latest discoveries thanks to the speed of the Internet. Appendix B gives you a number of useful Web site addresses that can help you stay up-to-date on thyroid health.