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# **OVERCOMING CHRONIC FATIGUE**

*A self-help guide using  
Cognitive Behavioral Techniques*

MARY BURGESS  
WITH  
TRUDIE CHALDER

Robinson  
LONDON

*Mary*  
To Martin and my children: Emily, Rachel, Thomas and Anna

*Trudie*  
To Mark

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**Important Note**

This book is not intended as a substitute for medical advice or treatment. Any person with a condition requiring medical attention should consult a qualified medical practitioner or suitable therapist.

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The source of the physiological explanation for chronic fatigue syndrome and some of the information contained within the section on autonomic arousal in CFS came from an unpublished treatment manual written by Pauline Powell, a physiotherapist in Liverpool.

The chapter on overcoming unhelpful thinking patterns was influenced by work carried out by Christine Padesky and Dennis Greenberger; for more comprehensive explanations of the ideas contained within this chapter, we recommend that you refer to their book *Mind over Mood* (for details see Chapter 14, 'Useful resources').

*A personal note from Mary Burgess:* I would like to thank Trudie Chalder, with whom I have worked for the past ten years. Without her enthusiasm for finding ways to help

people with chronic fatigue syndrome, this book might never have been written. Trudie's extensive research and vast clinical experience have contributed not only to our understanding of chronic fatigue syndrome today but also to the development of techniques to help individuals overcome their problems.

## Preface

Fatigue is central to many chronic and debilitating illnesses, including chronic fatigue syndrome, chronic pain, cancer, and chronic respiratory problems. However, fatigue is something that also occurs when we are overcommitted, working too hard, or making too little time for relaxation. Although this book has been specifically written for people suffering from chronic fatigue syndrome, many of the techniques will be useful for people who feel fatigued from other causes.

Our reasons for writing a self-help book for people with chronic fatigue syndrome were varied. First, we had carried out a small research study at King's College Hospital, London, which indicated that some patients improved after using an earlier version of this self-help book with only phone calls from a therapist, rather than face-to-face consultations. Second, there are a number of people suffering from chronic fatigue syndrome who do not have access to a clinician with the expertise to help them to overcome their problems. Third, some people suffering from chronic fatigue syndrome continue to lead busy lives that make it difficult for them to attend regular appointments.

The overall aim of this book is to provide you with information and strategies to help you to overcome your fatigue and the restrictions on your life that result from it.

The strategies have been shown to be effective in treating a wide range of illnesses, including chronic fatigue syndrome. However, although the help provided here may be enough to help you overcome your fatigue and associated problems, it may not be sufficient for everyone. For those, advice on where to get further help is offered.

## **How to use this book**

The information in this book has been laid out in an order that people have generally found useful. We therefore recommend that you work your way through the book in the order that it has been written. When you reach Part Two, the core of the self-help manual, we suggest that you read each chapter more than once before embarking on the suggested strategies. We have suggested a timetable to help you pace your efforts. We also ask you to keep a number of diaries; you may photocopy the blanks provided here for your own use, or alternatively you might prefer to devise your own diary sheets, perhaps on a computer. We suggest that you work through Part Three of the book when you have already made some changes in your life and feel confident with some of the techniques you have learned. If you have relatives or friends who are keen to support you, we suggest you ask them to read Part Four, Chapter 15.

## **What does this book include?**

Part One of this book aims to help you to understand your problem. It describes possible causes of fatigue and discusses

factors that may be contributing to maintaining your fatigue. It also gives some possible explanations of other symptoms that are common in people with chronic fatigue syndrome.

Part Two focuses on a variety of practical strategies that aim to help you overcome your fatigue problems. If you feel that not all of the chapters are relevant to your problems, then it is fine to miss out those parts. Before you start applying the various strategies, we would like you to consider 'A few words of warning' on pages 42–3, just to be sure that this approach is right for you.

First of all, you will learn how to monitor your sleep and daytime activities in order to help you decide what you want to change. You will then discover ways of improving the quality of your sleep and regulating your sleep pattern. You will read about how to achieve a better balance between activity and rest, how to set your own targets, and how to work towards them. You will then read a section on how to overcome unhelpful thinking patterns. For people who feel they are not making much progress despite carefully following the instructions in the book, there is a section on how to overcome blocks to recovery. We have also included some strategies on overcoming worry, stress, and anxiety. The final chapter in Part Two discusses practical ways of managing setbacks; you would be advised to read this section with particular care if you notice that your symptoms not only persist but increase substantially.

Part Three focuses on helping you to consolidate what you have learned, and prepares you for maintaining and making further progress. It begins with a section of case studies that will help you see how other people have tackled

similar problems to those you may be facing. Information on where to get further help and a reading list are also provided.

Finally, Part Four offers some brief guidelines and information for your partner, relatives, and close friends. The aim of this chapter is to help the people close to you to understand your fatigue problems and to offer you support as and when you need it.

**PART ONE**

**Understanding Chronic  
Fatigue Syndrome**



# 1

## What is chronic fatigue syndrome?

In this chapter we give you some background information about chronic fatigue syndrome and discuss factors that may contribute to its onset. We also offer some explanations for many of the common symptoms experienced by people with chronic fatigue syndrome and discuss some of the treatments that are available.

### What is fatigue?

Fatigue is a difficult concept as it means different things to different people. People will often describe their fatigue using words such as *weakness*, *profound tiredness* or *sleepiness*, a *complete lack of energy* or *feeling totally drained*. Fatigue feels very different from the normal sort of tiredness experienced by a healthy person and is often associated with other feelings, such as pain, irritability, frustration, and sometimes low mood or anxiety. Fatigue is often a signal to stop or reduce activity, although paradoxically there is evidence that inactivity produces chronic fatigue; we will return to this topic later in the book.

Fatigue is a very common problem, affecting up to 30 per cent of the UK population (20 per cent of the US population)

at any one time. It is a symptom that can be associated with many illnesses. However, a single explanation for fatigue is rarely found. Fatigue often develops following an infection, and sometimes occurs when life is very busy and stressful. Whatever the cause of your fatigue, it is a *real* and debilitating problem.

### **What is chronic fatigue syndrome?**

Chronic fatigue syndrome (CFS), also known as post-viral fatigue syndrome (PVFS) or myalgic encephalomyelitis (ME), is an illness that has attracted much attention over recent years. Agreeing a name for the illness has been problematic as there has been much debate about the relative contributions of 'physiological' and 'psychological' factors in its development. This outmoded, dualistic view of illness assumes that the body and mind work separately and is unhelpful in understanding any condition. We will be offering alternative ways of viewing CFS later on.

Chronic fatigue syndrome is a fairly new label, although the illness itself was clearly described more than a hundred years ago. At that time it was called *neurasthenia*.

The main symptom experienced by people with CFS is persistent fatigue which feels overwhelming and unlike normal tiredness. Other symptoms may include painful muscles and/or joints, sore throat, headaches, pins and needles, dizziness, and sensitivity to light and noise. CFS has some marked similarities to fibromyalgia, a disorder involving widespread musculoskeletal pain and fatigue; however, the component of muscle pain in fibromyalgia is generally higher.

People with CFS often report impairments of their thinking, such as poor concentration, difficulty in finding words, and impaired short-term memory. Problems with sleep are also common; for example, difficulty getting to sleep, sleeping for very long periods, restless sleep with frequent dreams, waking frequently, sleeping but waking unrefreshed. Many people with CFS also report digestive disturbances such as bloating, nausea, or loss of appetite. Food intolerances and increased sensitivity to some foods, alcohol, and substances containing caffeine, such as tea and coffee, are often reported.

Symptoms vary among individuals and may come and go. However, whatever combination they take, they are usually very debilitating and lead many sufferers to make radical changes to their lifestyles. For some people this means giving up work or studying; alternatively, or in addition, it may mean reducing or restricting social and leisure activities and what they can do at home or with their family. The severity of the symptoms may leave people feeling so exhausted that they remain in bed for most of the day. Others may be able to go to work or manage their home, but do little else. Most find that their symptoms are made worse by physical and mental exertion.

As a result of this disabling illness, people with CFS will sometimes complain of feelings of frustration, helplessness, and low mood.

### **How is chronic fatigue syndrome diagnosed?**

As with many other illnesses where there is no known single cause, for example irritable bowel syndrome (IBS), there is no

test to diagnose chronic fatigue syndrome. A diagnosis of CFS is usually made by taking a detailed account of the symptoms, including how they started, how they behave (e.g. whether they worsen in response to certain activities), and the length of time they have been occurring. Basic screening blood tests will also be carried out to rule out any other illnesses that may account for the symptoms. Other more specialist tests are sometimes conducted, for example if there is significant weight loss or a history of foreign travel, but this depends on the symptoms. Medical practitioners can make the diagnosis of CFS, but sometimes they prefer to refer patients to a specialist with an interest in CFS.

### **How common is chronic fatigue syndrome?**

It is difficult to say precisely how common chronic fatigue syndrome is in the general population. First, it depends on how chronic fatigue syndrome is defined. Second, although some people may have all the symptoms of CFS, they may not attribute them to the illness itself.

Although 10–30 per cent of all UK patients going to see their doctor for any reason report substantial fatigue lasting for more than a few weeks (15–27 per cent in the US), studies have indicated that a diagnosis of chronic fatigue syndrome is made in only a small minority of these cases. CFS appears to be more common in women than men. A variety of explanations have been put forward for this, in particular changes in the role of women, with increased demands and expectations. Although fatigue is relatively uncommon during childhood, its incidence rises during adolescence.

Chronic fatigue syndrome can occur at any time in adulthood.

## **What causes chronic fatigue syndrome?**

As we noted above, it appears that there is no single cause of CFS. People report a variety of different things that happened at the beginning of their illness, including different types of illness or infection; but some were not aware of any infection or illness at all. Some sufferers can pinpoint the exact date that their CFS started; for others, the onset is more gradual. In the face of this wide range of experience, it is unlikely that a single cause for CFS will ever be identified. However, there is a growing body of evidence that suggests that a number of factors may be involved in triggering the illness.

If you have chronic fatigue syndrome, it is likely that you will be able to identify with some, though probably not all, of the triggers listed below.

### **Infection**

The starting point of CFS is often identified with an initial illness, frequently in the form of a viral infection: for example, a cold, influenza, or glandular fever. Serious viral infections can make us feel tired for up to six months.

Sometimes people report having had a series of infections, which may be a sign that they are run down. However, there is no clear evidence of the virus or bacterium persisting once CFS has become established. Recent research suggests that

excessive resting at the height of an infection is likely to lead to worse symptoms several weeks and months later. Although it is pertinent to 'take it easy' when in the acute phase of an infection, too much rest is unhelpful.

### **Lifestyle**

Fatigue can develop in association with a busy lifestyle. Leading a life which allows little time for relaxation is stressful. Following an infection or other illness, a person may feel under pressure to meet their previous levels of commitment, whether at work or at home, and this may lead to exhaustion. Being too busy is as likely to lead to fatigue as being inactive.

### **Life events**

Changing jobs, getting married, pregnancy, moving house, a bereavement, ending a long-term relationship: all these are stressful events which may lead to increased vulnerability to CFS.

### **Personality**

People with CFS often report that they are hardworking and conscientious, and have high expectations of themselves. Individuals with this type of personality tend to strive very hard to achieve in all they do, leaving little time for pleasure or relaxation. This then feeds into the 'lifestyle' trigger identified above.

Not everyone, however, will recognize these contributory causes. Some people will report that their condition developed for no apparent reason, simply coming out of the blue.

### **What keeps the chronic fatigue problem going?**

Just as there are many factors involved in triggering CFS, there are also many factors that are involved in keeping it going. These include the following.

#### **Resuming normal activities too soon after an initial infection**

If you keep up your usual level of activity – whether work, exercise, or child care – when you have an infection, or resume that level almost immediately, then your recovery is likely to take longer.

#### **Resting too much**

Although resting for a short time is the correct thing to do when you have an acute illness or infection, prolonged rest can impede recovery and cause its own set of problems. Evidence clearly suggests that the longer you rest when you have a viral illness, the more symptoms you will have six months later. Prolonged rest makes it harder to become active again and actually increases fatigue. Resting for too long will affect the cardiovascular system, nervous system and musculoskeletal system. Further details of the physical effects of CFS are given in the next section of this

chapter, entitled 'Physiological aspects of chronic fatigue syndrome'.

### **Receiving confusing messages about the illness itself and how to deal with it**

Many people with CFS will have sought advice or treatment from a number of sources, received a variety of different messages, and tried a range of different treatments. Many people report being told by well-meaning health professionals that they should rest at the onset and are frequently encouraged to rest for too long. This advice is often accompanied by fear-inducing messages that not resting will lead to prolonged illness. This can all too easily leave the sufferer feeling baffled about what to do for the best and further wearied by the effort of trying to find a potential 'cure'.

### **Overvigorous activity alternating with resting for long periods**

Some people refer to this as a 'boom and bust pattern': that is, doing too much when you have some energy, with the result that you then feel even more fatigued and have to rest for longer afterwards. This pattern of activity exacerbates the problem in the longer term, as it makes it difficult to establish any type of routine.

### **Disturbed sleep pattern**

Going to bed and getting up at irregular times, or resting too much in the day, may contribute to disturbed and

unrefreshing sleep at night. Not sleeping well at night is likely to increase feelings of fatigue and other symptoms of CFS.

### **Focusing on symptoms**

The symptoms commonly experienced by people with CFS are both distressing and debilitating, and it is therefore understandable that from time to time you may worry about them. Unfortunately, symptoms thrive on attention: in other words, the more you focus on your symptoms, the worse they are likely to get.

### **Worries about activity making the illness worse**

People with CFS commonly experience increased pain or fatigue after *any* activity, and many understandably read this as a sign that they are doing harm to their bodies. If you have worries like these, you may have reduced your activities and rested for long periods in the belief that resting will help you to feel better. However, as we have already mentioned, resting for too long can cause its own set of problems.

### **Life stress and low mood**

Many people with CFS experience significant and continuing stresses and problems in their lives as a result of their illness. These may include one or more of the following:

- financial difficulties arising from having given up work or reduced working hours;
- worries about holding down a job or keeping up with studies;
- anxiety about a changed role within the family through being less able to take responsibility for dependents;
- reduced social contacts, leading to feelings of isolation;
- feelings of guilt about not being a 'good' parent/wife/husband, etc.

These stresses and anxieties can understandably trigger feelings such as frustration, helplessness, and a sense of loss of control over life. These feelings in turn can lead to low mood, and even to depression. Low mood can lead to a variety of problems, including tiredness, which can further reduce the desire to be active.

### **Physiological aspects of chronic fatigue syndrome**

Many people with CFS are concerned that their distressing symptoms may be related to a disease that hasn't been detected. Others, who had a viral infection at the time their CFS began, are concerned that the virus is still present or has caused damage to the body. Intensive research has tried to establish a physiological explanation for the very distressing and debilitating symptoms experienced by people with CFS.

Over time, reduced or irregular activity and increased periods of rest cause physical changes in the body. These

changes can both exacerbate the unpleasant sensations of CFS and cause additional symptoms such as increased muscle pain during exercise. It is important to point out that these changes are reversible with physical rehabilitation and/or exercise.

Researchers have looked at the effects of rest in healthy people when they reduce their activities, and many similarities between healthy inactive people and people with CFS have been noted. The following paragraphs describe the effects on the body of prolonged periods of inactivity, and how these effects are experienced.

### **Changes in muscle function**

A decrease in the number of active cell mitochondria (tiny parts of the cell that produce energy) and their enzymes has been found in the muscles of CFS patients when compared with healthy *active* people. This reduction of cell mitochondria has also been found in healthy *inactive* people. Fewer cell mitochondria may lead to production of lactic acid at low exercise levels, which in turn limits muscle performance.

*These changes may account for the feeling of a lack of power or energy in the muscles.*

Reduced activity leads to muscles being less efficient (reduced in strength, tone, and size), and consequently less effective in squeezing the blood back to the heart; this causes blood to pool in the lower part of the legs.

*Pooling of blood can cause pain both during activity and at rest.*

When muscles are not used regularly, they become unfit or deconditioned. When these muscles contract during activity, uneven stresses are produced.

*This may result in a feeling of weakness and unsteadiness followed by delayed pain and discomfort.*

In respect of this last point, it is important to note that for everyone muscle pain and stiffness are natural consequences of beginning a new exercise program or taking exercise to which they are unaccustomed. They are therefore not an indication that the exercise should be halted; only that it should be built up gradually.

### **Changes in the cardiovascular system**

The cardiovascular system (which incorporates the heart and blood vessels) loses condition very quickly with rest. The longer you rest, the more changes occur.

Physical changes that occur with cardiovascular deconditioning include:

- after one or two days' bed rest, reduced blood volume; after eight days' bed rest, reduced volume of red blood cells, which reduces the oxygen-carrying capacity of the blood;
- after 20 days' bed rest, the volume of the heart reduces by about 15 per cent, so that less blood is pumped to other organs.

*The physical changes described above may result in making you feel breathless or dizzy when exercising, and contribute to your fatigue.*

Following a 'lying down' rest there is a drop in blood pressure on standing up (postural hypotension) as gravity causes blood to pool in the limbs. Consequently, less blood returns to the heart and therefore less blood goes to the brain. Restricting salt or liquid intake reduces blood volume and can exacerbate dizziness on standing up.

*The reduced blood flow to the brain causes dizziness and sometimes fainting on standing up.*

### **Regulation of body temperature**

Changes in the blood flow to major body organs occur following prolonged rest, and these lead to changes in surface body temperature.

*This may result in feeling hot and/or cold, with excessive and inappropriate sweating at times.*

### **Changes in sight and hearing**

Prolonged bed rest results in a 'headward' shift of bodily fluids.

*This may result in visual problems and sensitivity to noise.*

### **Reduced tolerance to activity or exercise**

General deconditioning of the body occurs as a result of prolonged rest or reduced activity.

*As fitness reduces, it is harder work to be active. Muscle fatigue and feelings of heaviness, as well as a general increase in overall fatigue, occur when activity is resumed.*

During periods of prolonged physical or mental exertion, the nervous system is more active than normal and adrenaline production is raised. This leads to symptoms similar to those experienced in a flu-like illness, such as *aches and pains, headache, sweating, feeling hot and cold, chest tightness, and sore throat*. If a person experiences these symptoms after activity, they may reduce or avoid activities, as they may believe that they are coming down with flu or a cold. Limiting activity can perpetuate the symptoms and lead to a further reduction of fitness and muscle strength.

### **Changes in the nervous system**

One of the functions of the nervous system is to coordinate the muscles. Regular performance of an activity is required to maintain good coordination. Prolonged periods of inactivity therefore reduce coordination.

*This may result in unsteadiness, clumsiness, and reduced accuracy on carrying out precise movements.*

### **Changes in mental functioning**

Prolonged rest deprives people of intellectual stimulation and has a dulling effect on intellectual activity.

*This may impair concentration, memory, and the ability to find the correct word.*

### **Alteration of the biological clock**

The 'biological clock', which is located in a part of the brain called the hypothalamus, regulates many body rhythms that

run on an approximate 24-hour cycle. These rhythms are called 'circadian rhythms', and they control vital functions such as:

- sleeping and waking;
- feelings of tiredness and alertness;
- intellectual performance;
- memory;
- appetite;
- body temperature;
- the production of hormones; e.g. cortisol (which is important in regulating our metabolism);
- the activity of the immune system.

Circadian rhythms are responsible for the body 'feeling' things at certain times of the day: for example, hunger, alertness, tiredness, the need to go to the bathroom. The biological clock is affected by the events of the day and is reset each day by cues such as times of getting up or going to bed, mealtimes, and performing daily routines. If these cues do not occur, the biological clock's timekeeping can be disturbed; this can happen, for example, when flying across different time-zones (jet-lag), working shifts – or experiencing illness.

If regular cues are lost, disruption of the clock results in a slipping of body rhythms that can lead to:

- the 'normal' intense feelings of tiredness at night shifting into the day, making it difficult to cope with your usual daytime routine;

- the 'normal' daytime rhythm shifting to the night, making you more alert and causing difficulty in getting to sleep.

This in turn can lead to:

- poor-quality sleep at night;
- increasing fatigue during the day;
- poor concentration and forgetfulness;
- low mood;
- feeling generally unwell;
- headaches;
- muscle aches;
- loss of appetite;
- irregularities of bowel movement.

As the symptoms of chronic fatigue syndrome are similar to those of jet-lag, circadian rhythms of people with CFS have been investigated. Evidence from some studies indicates that CFS is associated with the biological clock losing control of the body rhythms.

What may happen is an infection, a very stressful life event, or an accumulation of persistent stress causes worry and disturbs sleep at night. This leads to irregular times of getting up and going to bed, and more rests taken during the day. Thus the usual daily routine and normal sleep-waking cycle, both needed to reset the biological clock, are disrupted. The biological clock then loses control over body rhythms, resulting in the mental and physical symptoms of CFS.

### **Disturbance of cortisol production**

Cortisol is a hormone whose production is controlled by a circadian rhythm. It sets our metabolism in action in the morning to prepare us for the physical and mental challenges of the day. Exercise, other activity, and stress cause an increase in the level of cortisol in the bloodstream.

Low cortisol levels have been found in people who have disrupted sleep, such as healthy individuals who have rested in bed for more than three weeks, healthy workers after working five night shifts, and people suffering from jet-lag.

Research shows that some people with CFS also have a lower than normal level of cortisol; it is thought that these low cortisol levels are probably caused by disrupted sleep and irregular activity.

*Low cortisol may add to the feeling of tiredness, decreased alertness, and poor performance seen both in people with CFS and those who work on night shifts.*

### **Disturbance of the sleep–wake rhythm**

Most people with CFS complain of poor-quality sleep. Common problems include difficulty in getting to sleep, restlessness, waking in the night, and waking feeling unrefreshed and sleepy.

In a study where the sleep patterns of healthy volunteers were deliberately disrupted to make them similar to those of people with CFS, they developed symptoms similar to those of CFS, including feeling unrefreshed and physically weak, sleepiness, poor concentration, and muscle aches.

However, when they were allowed to sleep undisturbed, their symptoms subsided. This study indicates that a disturbed sleep pattern can cause some symptoms of CFS, but that these symptoms are reversible.

Disruption of sleep can affect the activity of the immune system, possibly increasing vulnerability to colds and infection.

*Inactivity and being deprived of sleep cause an increase in the feelings of effort and fatigue when performing activity or exercise.*

## **Autonomic arousal in chronic fatigue syndrome**

Autonomic arousal is an automatic physical response of the body to a threatening or stressful situation. We can all remember having butterflies before an exam, an interview, or going to the dentist! When we are in a situation that makes us feel anxious, the central nervous system becomes more active and an increased amount of the hormone adrenaline is released into the bloodstream. These natural changes have a protective function in preparing us for action to counter a threatened danger; however, the physical feelings that we experience when anxious can be very unpleasant.

Having CFS can at times be very stressful. You may be not only dealing with your illness, but also facing other concerns related to it, such as financial worries and/or an inability to meet deadlines at work, college, or home. You may worry about whether you are making your symptoms worse by following advice that you have been given. You also may worry about the causes of your condition and the effects of CFS on your own and others' lives. If you have been ill for a

while, you may worry about doing things that you haven't done for a long time, such as meeting friends. All of these worries may at times trigger feelings of anxiety, which in turn can lead to a range of unpleasant physical feelings. These effects, and how you may experience them, are listed below.

### **Increased heart rate**

*This can be felt as a racing pulse, palpitations, pounding, or tightness in the chest.*

Some people feel very frightened by these sensations and so become yet more anxious, resulting in a further release of adrenaline that maintains the physical sensations.

### **Increase in blood pressure**

High blood pressure is noted in some people with anxiety. This is likely to be associated with an exaggerated autonomic response to stress by the nervous system.

There are usually no particular signs or symptoms of high blood pressure; it is usually detected only in the course of routine investigations by doctors or if another illness is present; for example, heart or kidney problems.

### **Breathlessness, which can lead to hyperventilation**

This natural response to being anxious enables our lungs to be filled with oxygen to prepare us for action. However, if overbreathing (hyperventilation) continues for a while, an

array of unpleasant symptoms may occur because it reduces the amount of carbon dioxide in the blood. This changes the balance of chemicals in the blood, causing tightening of the blood vessels and reduced blood supply, especially in the brain.

*This reduced blood supply to the brain causes sensations such as light-headedness, dizziness, feeling faint, feeling unsteady, blurred vision, pins and needles, tingling, or numbness (sometimes one-sided) in the limbs or face, or clumsiness. Cramplike muscle spasms may be experienced, particularly in the hands and feet. Increased sensitivity to light and noise may also occur, as well as abnormal sensations such as feelings of being detached from oneself. Feelings of unreality or being out of control may also occur.*

Feelings of faintness are misleading, because blood pressure is usually high in anxiety and fainting occurs only when blood pressure is very low. However, anxiety may precede a faint when someone who has a blood and injury phobia has an injection or sees blood: in these situations blood pressure drops and fainting can occur.

The muscles of the chest wall can be overused during hyperventilation, which may lead to *chest pain* or *discomfort*. If these sensations are interpreted as signs of a serious problem, for example of heart trouble, that can lead to a further increase in anxiety and adrenaline production, leading to a further increase of unpleasant sensations.

*Overbreathing also results in increased use of the muscles of the head, neck, and shoulders, resulting in headaches and localized stiffness and pain.*

*Overuse of the neck muscles in hyperventilation can be accompanied by sensations of tightness or soreness in the throat.*

*Increased nerve activity and release of adrenaline may also cause excessive breathing through the mouth and reduced saliva production. These result in a dry mouth, swallowing difficulties, and the feeling of a lump in the throat.*

### **Altered blood flow**

When we are anxious, blood is redirected to muscles to prepare for action. Reduced blood flow to the skin may cause *pallor, pain, coldness of hands and feet, and sometimes numbness or tingling.*

Reduced blood flow to the bowel affects the passage of food and can result in *symptoms of irritable bowel; for example, constipation and/or diarrhoea and abdominal discomfort.*

### **Muscle tension**

There is an increase in the tension of the muscles to prepare them for action.

*This can cause aches, pains (particularly in the shoulders, neck, jaw, and head), and fatigue. Muscular twitching or trembling may also occur.*

### **Visual disturbance**

Increased nerve activity affects the muscles of the iris (the colored part of eye), causing the pupils to dilate and so to let in more light. This may help to explain the sensitivity to bright light experienced by some people with CFS. The shape of the eye lens is altered to help improve side and

distance vision. Together, the effects of these changes can be experienced as *blurring of vision*.

### **Sweating**

Increased sweating occurs to allow for heat loss, causing *clammy hands and feet*.

### **Sleep disturbance**

Adrenaline production increases at times of stress, so that sleep disturbance, for example *difficulty getting to sleep* or *frequent waking*, is very common; it may be accompanied by *nightmares* and *sweating*.

### **Mental functioning**

Anxiety may affect mental functioning in a number of ways and contribute to the following:

- mood disturbance; for example, irritability, being easily upset;
- inability to concentrate, forgetfulness, indecisiveness;
- restlessness; for example, being fidgety or unable to sit still;
- a tendency to go over things again and again.

Everyone experiences physical symptoms of anxiety in an individual way, and few people have all of the symptoms listed above. However, when any of these symptoms are

extreme, they can easily be misinterpreted as signs of a serious disease, and worry about this can trigger further unpleasant symptoms; this vicious circle can occasionally trigger a panic attack.

An increase in nerve activity and adrenaline production can precipitate feelings of weakness and exhaustion on top of the fatigue and muscle aches of chronic fatigue syndrome.

## **Management of chronic fatigue syndrome**

Every person who has chronic fatigue syndrome has a different story to tell about what they have been advised to do by health professionals. This account will vary according to the beliefs or knowledge about CFS of the health-care professionals that you see; the availability of specialists in this area of medicine; and access to information about CFS: for example, through local support groups, the Internet, and so on.

You may feel that your illness has not been taken seriously. You may have been told that there is nothing wrong with you, that it is all in your mind, or that you should pull yourself together. On the other hand, you may have been told to rest until you feel better – or, conversely, to do as much as you can. You may have tried a number of remedies; or you may be reading this book without ever having talked to anyone about your chronic fatigue.

Even if a physical cause of your symptoms cannot be found, that does not mean there is nothing wrong with you. A combination of many factors may have precipitated and be maintaining your CFS. Every illness from the common

cold to cancer can be affected by our lifestyle, attitudes, experiences, and other things that happen around us. For example, you may have noticed that you are more likely to have a cold when you are particularly busy and under pressure.

In Part Two of this book we describe practical strategies to help you overcome your CFS. Some of the other treatments and remedies that are commonly used to treat chronic fatigue syndrome are listed here.

### **Antidepressants**

There is little evidence that antidepressants will reduce fatigue in people with chronic fatigue syndrome. However, they may be useful in treating any associated depression. Some antidepressants also contain properties that can alleviate muscle pain and insomnia.

### **Corticosteroids**

There is not enough evidence of the effects of corticosteroids in people with CFS to arrive at any conclusion about their usefulness. Any benefit from low doses has been short-lived, and higher doses have been linked with adverse effects such as adrenal suppression.

### **Immunotherapy**

Again, there is a lack of substantial evidence to support the use of immunotherapy in people with CFS. Adverse effects

including headaches, fatigue, and gastrointestinal disturbances have been reported.

### **Dietary supplements**

Little research has been carried out in this area. One study has shown benefits in some patients having magnesium injections. There have been mixed results from using evening primrose oil.

### **Diet**

Various diets have been recommended in the treatment of chronic fatigue syndrome. If there is a proven allergy or intolerance, there may be benefits in excluding the aggravating food substance. Many people with CFS report being intolerant to alcohol and therefore exclude it from their diet. However, it is worth bearing in mind that avoiding any food for a while will result in a change in gastrointestinal functioning when reintroduced. Alterations in diet when traveling abroad, for example, may have similar effects.

### **Prolonged rest**

Prolonged rest has not been shown to be helpful in the treatment of CFS. There is a lot of indirect evidence to suggest that prolonged rest may delay recovery because of the associated physical deconditioning.

### **Graded exercise**

Graded exercise is designed to reverse the physical deconditioning (reduced fitness) and reduced muscle strength found in people who have chronic fatigue syndrome. It has been shown in research trials to reduce fatigue and substantially improve physical functioning for people with CFS.

### **Pacing**

Pacing is an energy management strategy in which people with chronic fatigue syndrome are encouraged to achieve an appropriate balance between rest and activity. This usually involves living within the physical and mental limitations imposed by the illness and avoiding activities that exacerbate symptoms or interspersing activities with planned rests. Pacing has been reported as useful by the UK patient organization Action For ME (AFME), which collated responses from CFS sufferers. Pacing has yet to be evaluated in a randomized research trial.

### **Complementary and alternative medicine**

The terms 'complementary' and 'alternative' medicine refer to a wide range of approaches that aim to improve health and well-being. Although they are not generally considered to be part of mainstream medical care, they have been found helpful by people with a wide range of health problems and illnesses, including chronic fatigue syndrome. Although approaches including homoeopathy, osteopathy, acupuncture, and herbal remedies have helped some people with CFS, there is no research evidence to support their use.