

# Understanding Anxiety

Dr Adam Lake GP

## Introduction

Anxiety is a common human experience. Most people will feel anxious at times, particularly when facing uncertainty, pressure, or situations perceived as threatening. For some people, however, anxiety becomes frequent, persistent, distressing or difficult to understand, affecting daily life, sleep, concentration, and physical wellbeing.

This guide explains anxiety using current understanding of how the brain and body respond to stress and perceived danger. The aim is to provide clear, realistic information without oversimplifying or medicalising normal human reactions.

Anxiety can be deeply uncomfortable. However, it is not usually a sign that something is damaged or permanently wrong. In most cases, anxiety reflects the nervous system attempting to protect the person — sometimes becoming overactive or remaining switched on longer than is helpful.

Understanding how anxiety works often reduces fear of symptoms and provides a clearer sense of what may help recovery.

## What Anxiety Actually Is

Anxiety is not a disease with a single identifiable biological abnormality in the same way as conditions caused by infection or a tumour. Instead, it is a state produced by the body's threat and safety system, sometimes called the stress response.

This system evolved to help humans survive danger. When the brain detects possible threat — whether physical, emotional, or social — it activates coordinated changes throughout the body designed to prepare for action.

These changes may include:

- faster heart rate
- quicker breathing
- muscle tension
- increased alertness
- changes in digestion
- heightened awareness of surroundings
- changes in thinking patterns to narrowly focus on threats or potential dangers

Together, these responses are often called the fight-or-flight response.

In genuinely dangerous situations, this response is helpful and protective. They are a carry over from humans having evolved in a different environment to the modern one. These

changes are all geared towards mounting a physical response by supplying blood to peripheral muscles and away from digestion, and focusing attention on the immediate threat - such as having to fight or run away from a wild animal. Problems arise when the system becomes activated too easily, too strongly, or for too long, particularly when no immediate action is possible.

Anxiety therefore represents an overactive or sensitised protection system, rather than a malfunction.

Anxiety can be understood as an alarm system that has become too sensitive. Like a smoke alarm that activates when toast burns rather than when there is a real fire, the nervous system may begin reacting to perceived danger even when a person is objectively safe. The alarm is functioning as designed — attempting to protect — but its sensitivity has increased.

We often talk about “having anxiety,” but anxiety is better understood as something the nervous system *does* rather than something a person permanently possesses.

### Physical responses

Anxiety is often experienced physically because the stress response primarily affects the body.

When the threat system activates, the brain sends signals throughout the body preparing it for action and protection. These changes occur automatically and do not require conscious control.

Adrenaline and related stress hormones increase heart rate and redirect blood flow toward muscles and the brain. Breathing becomes quicker to support activity. Digestion slows as energy is temporarily diverted away from non-urgent processes. Attention narrows toward possible danger, increasing alertness to internal sensations and the surrounding environment.

These normal biological responses can produce symptoms such as:

- palpitations or chest tightness
- breathlessness or a feeling of not getting enough air
- dizziness or light-headedness
- nausea or stomach discomfort
- trembling or sweating
- feelings of unreality or detachment.

Although alarming, these sensations are common effects of an activated stress system. They are not signs of heart damage, suffocation, or loss of control.

One of the most distressing aspects of anxiety is that the physical sensations themselves can feel threatening. When this happens, the body interprets the sensations as further danger,

increasing activation and intensifying symptoms in a cycle. Understanding this process often helps reduce fear and allows the nervous system to settle more easily.

## Why Anxiety Changes Thinking and Attention

Anxiety affects not only the body but also how the brain processes thoughts, attention, and imagination. When the nervous system enters a state of threat or high alert, the brain shifts into a mode designed to detect danger quickly.

In this state, thinking naturally becomes more focused on possible problems or risks. People may notice:

- persistent worrying
- imagining worst-case scenarios
- difficulty concentrating
- racing thoughts
- intrusive or unwanted thoughts
- increased self-monitoring or overthinking.

These changes are not signs of damage or loss of control. They reflect the brain attempting to predict and prevent danger.

When the body is in a threat state, areas of the brain involved in rapid threat detection become more active, while systems responsible for reflection, long-term planning, and perspective-taking become less dominant. This makes attention naturally drawn toward uncertainty and potential problems. The brain is prioritising safety at that moment.

Worrying and imagining negative outcomes can be understood as the mind trying to prepare for threats in advance. Although this process is intended to help, it can become exhausting when the nervous system remains activated for long periods.

Intrusive thoughts are also common during anxiety. These thoughts can feel disturbing precisely because they are unwanted. Their presence does not mean a person agrees with them or intends to act on them; they reflect increased mental alertness rather than hidden intentions.

As the body settles, thinking patterns usually become calmer and more flexible again. Anxious thoughts are often a consequence of a nervous system in threat mode, rather than the original cause of anxiety.

## Common Anxiety Experiences and What They Mean

Many symptoms of anxiety feel frightening because they resemble signs of serious illness or loss of control. Understanding why these experiences occur can reduce fear and help prevent symptoms themselves from becoming a source of further anxiety.

### Racing or pounding heart

A faster heartbeat occurs because adrenaline prepares the body for action. Blood flow increases to muscles and the brain so that a person can respond quickly to danger. Although uncomfortable and very noticeable, this response is a normal feature of the stress system and is usually not harmful in otherwise healthy individuals.

### **Breathlessness or feeling unable to get enough air**

During anxiety, breathing often becomes quicker or more shallow. Changes in breathing patterns lower blood carbon dioxide levels which can create sensations of air hunger, chest tightness, or the urge to take deep breaths. These feelings are common during stress responses and do not indicate a lack of oxygen.

### **Dizziness or light-headedness**

These changes in breathing and circulation can temporarily alter balance and awareness, leading to dizziness or a feeling of unreality. These experiences can be alarming but are well-recognised effects of nervous system activation.

### **Tingling, shaking, or trembling**

Adrenaline increases nerve and muscle activity, which may produce trembling or tingling sensations, particularly in the hands, face, or chest. These symptoms settle as the body returns to a calmer state.

### **Stomach discomfort or nausea**

The stress response slows digestion because energy and blood flow is redirected toward immediate survival functions. This can lead to nausea, bloating, stomach pain, or changes in appetite during periods of anxiety.

### **Feeling detached or unreal**

Some people experience a sense of being disconnected from surroundings or from themselves. This is sometimes called depersonalisation or derealisation. It is thought to be a protective brain response during intense stress, and is also often linked to temporarily lowered carbon dioxide levels, and does not mean a person is losing control or “going mad.”

### **Feeling as if something terrible is about to happen or “I’m going to die”**

During intense anxiety or panic, the brain’s alarm system becomes highly activated and creates a powerful sense of imminent danger. This feeling can be extremely convincing even when no external threat is present.

Panic attacks feel overwhelming, but they are not dangerous. They do not cause heart attacks, suffocation, or loss of control of the body. The sensations reflect a temporary surge of the body’s alarm response and settle as the nervous system returns toward balance.

## **Withdrawing from activities or feeling unable to leave home**

When anxiety becomes intense or unpredictable, people naturally begin to avoid situations where symptoms might occur. Staying at home or withdrawing from activities often brings short-term relief because it reduces exposure to perceived threat.

This response is understandable and protective. However, over time the nervous system may begin to associate more situations with danger, making everyday activities feel increasingly difficult. Withdrawal therefore reflects the body trying to stay safe rather than a lack of motivation.

## **How Anxiety Is Diagnosed (and What a Diagnosis Means)**

Healthcare professionals sometimes use diagnostic terms such as generalised anxiety disorder, panic disorder, or social anxiety. There are many different diagnoses that can be used. These diagnoses can be helpful – for validation and understanding, work or school adjustments, or access to treatments - but it is important to understand what they mean — and what they do not mean.

Unlike conditions that can be confirmed with blood tests or scans, anxiety diagnoses are not based on a single biological abnormality. There is no test that shows someone “has anxiety” in a medical sense. Instead, diagnoses are created by grouping together patterns of symptoms and experiences that tend to occur in similar ways – they are decided by committees based on common groups of symptoms but are not based on objective scientific findings. These categories were developed to help clinicians communicate clearly, guide treatment decisions, and allow access to appropriate support and services and are have value in this sense. However they are practical tools rather than precise explanations of cause - descriptive rather than explanatory. In this sense, a diagnosis describes a pattern of experiences, not a specific disease process.

People who receive the same diagnosis may have very different reasons for becoming anxious, and each person's experience of anxiety is different. For some, anxiety develops during periods of stress or major life change. For others, it appears gradually without a clear trigger. Physical health, sleep, personality, past experiences, and current circumstances can all contribute.

A diagnosis can therefore be useful as a shared language, but it does not fully explain why anxiety has developed for a particular person. Understanding the individual context remains just as important as the diagnostic label itself.

Receiving a diagnosis does not mean something is permanently wrong. Anxiety states often change over time as the nervous system adapts and new patterns of safety and regulation develop.

## **Why Anxiety Can Persist**

Anxiety has evolved to be temporary. In situations of real danger, the stress response activates and then settles once safety returns. However, the nervous system can sometimes remain in a heightened state even when no immediate threat is present.

Several understandable processes can contribute to anxiety continuing over time.

### **Sensitisation of the alarm system**

When the stress response is activated repeatedly, the nervous system can become more sensitive. This means smaller triggers — or even internal sensations such as a racing heart — may begin to activate anxiety more easily. The system becomes highly skilled at detecting threat but slower to switch off.

This is not a conscious choice. It reflects normal learning processes within the brain and body.

### **Attention and monitoring**

Anxiety naturally draws attention toward possible danger. People may begin to monitor bodily sensations, thoughts, or surroundings more closely in an understandable attempt to stay safe. Increased monitoring can make normal sensations feel more significant or alarming, which further activates the stress response.

### **Avoidance and short-term relief**

Avoiding situations that trigger anxiety often brings immediate relief. While this response is understandable and sometimes necessary, the nervous system may not get the opportunity to relearn that the situation is safe. Over time, the range of situations that feel threatening can gradually expand.

### **Fear of the symptoms themselves**

Over time, people may begin to fear the sensations of anxiety rather than external situations alone. This is understandable, as the symptoms can feel intense and unpredictable. Anticipating these sensations can itself activate the stress response, creating a cycle in which anxiety appears to confirm the fear of it.

Recognising this process often helps explain why anxiety can continue even when life circumstances improve.

### **Physical and lifestyle influences**

Sleep disruption, illness, prolonged stress, pain, caffeine, hormonal changes, and reduced opportunities for recovery can all influence how easily the nervous system becomes activated. Anxiety therefore often reflects the combined effects of body and environment rather than a single cause.

## Past Experiences and Trauma

For some people, anxiety is linked to past experiences in which the nervous system was exposed to overwhelming stress or threat. These experiences are often described as trauma, although trauma does not always involve dramatic or life-threatening events. Experiences such as accidents, illness, loss, bullying, abuse, chronic stress, or periods of feeling unsafe or unsupported can all shape how the brain's threat system develops.

During highly stressful experiences, the nervous system learns rapidly in order to protect the person in the future. This learning can increase sensitivity to danger signals, meaning situations, sensations, or emotions that resemble earlier experiences may trigger anxiety even when current circumstances are safe.

These responses reflect the nervous system doing exactly what it evolved to do — learning from experience to prevent future harm.

Importantly, not everyone with anxiety has experienced identifiable trauma, and anxiety can develop for many different reasons. However, when past experiences play a role, understanding this connection can help explain why anxiety sometimes feels automatic or difficult to control.

Over time, with safety, supportive relationships, and appropriate help such as specific forms of talking therapy, the nervous system can gradually relearn that present situations are different from past threats.

## Stress, Life Circumstances and Human Needs

Anxiety does not arise only from internal biology. Human nervous systems are highly responsive to life circumstances and to whether important psychological and social needs are reasonably supported. For most people, modern life contains many more psychological and social threats than physical ones. The body and brain treats these threats in the same way as physical ones, leading to prolonged activation of stress responses.

People generally function best when certain basic conditions are present, such as:

- a sense of safety and stability
- predictable daily rhythms
- supportive relationships
- meaningful activity or purpose
- opportunities for rest and recovery
- some feeling of control or influence over daily life.

When several of these areas are under strain — for example during prolonged work pressure, uncertainty, illness, caregiving responsibilities, financial stress, loneliness, or major life transitions — the nervous system may remain in a state of increased alertness.

Importantly, anxiety does not require a single dramatic event. It often develops gradually when pressures accumulate faster than opportunities for recovery.

Modern environments can place sustained demands on attention, availability, and performance while allowing fewer periods of genuine rest. Constant information exposure, time pressure, and reduced downtime can keep the stress system activated for long periods, making anxiety more likely to persist.

Recognising the role of life circumstances does not mean anxiety is “just stress” or under voluntary control. Rather, it highlights that anxiety reflects the interaction between the nervous system and the conditions in which a person is living.

Understanding this broader context can help guide supportive changes that reduce pressure on the stress system over time.

### **Supporting Recovery: How Anxiety Begins to Settle**

Anxiety involves both the mind and the body, and recovery usually occurs as the nervous system gradually spends more time in states of safety and regulation.

The brain and body communicate continuously. Signals from breathing, movement, relationships, and daily routines all influence how safe or threatened the nervous system feels. Because anxiety is partly a bodily state, supportive changes in these areas can help reduce overall activation over time.

Recovery rarely comes from a single action. Instead, improvement usually reflects small, consistent influences that reduce pressure on the stress system and increase opportunities for recovery.

### **Understanding and reassurance**

Learning how anxiety works often reduces fear of symptoms. When physical sensations are recognised as part of a protective response rather than signs of danger, secondary fear decreases and the nervous system may settle more easily.

### **Rhythm and routine**

The body functions best with reasonably predictable patterns of sleep, activity, light exposure, and rest. Irregular routines or prolonged stress can maintain heightened alertness, while gradual restoration of daily rhythm supports regulation.

### **Movement and physical activity**

Regular movement helps regulate stress hormones, reduce muscle tension, and support nervous system balance. The aim is not intense exercise but consistent activity suited to the individual's circumstances.

## **Breathing and physical regulation**

Breathing patterns influence the nervous system directly. Faster breathing accompanies alertness, while slower, more comfortable breathing patterns are associated with recovery states. Improvement usually comes not from controlling breathing forcefully, but from allowing more settled patterns to re-emerge over time. These approaches are often included as part of talking therapy, and can also be learned and explored independent of the therapeutic setting.

## **Psychological therapies**

Talking therapies can help people understand patterns that maintain anxiety and support gradual re-engagement with situations that have become difficult. Many approaches focus on reducing avoidance and increasing confidence in managing symptoms safely.

## **Medication**

Medication can sometimes reduce symptoms, particularly when anxiety is severe or persistent. Medicines do not correct a known chemical imbalance but may influence brain signalling in ways that reduce sensitivity within the stress system. Decisions about medication are individual and made collaboratively with a clinician.

## **Social connection**

Human nervous systems respond strongly to signals of safety from others. Supportive relationships, shared activities, and feeling understood can help calm threat responses and support recovery.

## **Recovery and Outlook**

Anxiety often changes over time. For many people, symptoms improve gradually as the nervous system becomes less sensitised and spends more time in states of safety and recovery.

Recovery rarely happens suddenly or in a straight line. Periods of improvement are often mixed with setbacks, particularly during times of stress, illness, fatigue, or major life change. These fluctuations do not mean recovery has failed; they reflect the normal responsiveness of the stress system.

Importantly, anxiety does not usually indicate permanent damage. The brain and body remain capable of learning and adapting throughout life. As understanding increases and supportive changes are introduced — whether through lifestyle adjustments, therapy, medical support, or changes in circumstances — the nervous system can become less reactive.

Many people notice that anxiety becomes more manageable before it disappears completely. Symptoms may still occur at times, but they feel less frightening and less

controlling. Confidence often returns gradually as individuals learn that anxious sensations can be tolerated safely and pass on their own.

Recovery therefore often involves a change in relationship with anxiety rather than the complete absence of anxious feelings. The aim is for anxiety to return to its normal role as a helpful signal rather than a constant alarm.

### When to Seek Further Help

Anxiety is common and often improves with understanding, support, and time. However, additional help may be useful if anxiety begins to significantly affect daily life or feels difficult to manage alone.

It may be helpful to speak with a healthcare professional if:

- anxiety is persistent or worsening over several weeks or months
- sleep is regularly disrupted
- work, study, or relationships are being affected
- physical symptoms continue to cause concern despite reassurance
- avoidance of situations is increasing
- panic attacks occur frequently or feel overwhelming.

A medical assessment can help rule out physical conditions that sometimes contribute to anxiety symptoms and allow discussion of appropriate support options.

Urgent help should be sought if anxiety is accompanied by thoughts of self-harm, feeling unable to stay safe, or a sense of losing control. In these situations, contacting a GP, NHS 111, local crisis services, or emergency services is appropriate.

Seeking help does not mean anxiety is severe or permanent. Many people benefit from short periods of additional support that help the nervous system settle and confidence return.

### References

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (5th ed.). American Psychiatric Publishing, 2013.

Craske MG, Stein MB. Anxiety disorders. *The Lancet*. 2016;388:3048–3059.

LeDoux JE. Rethinking the emotional brain. *Neuron*. 2012;73:653–676.

McEwen BS. Physiology and neurobiology of stress and adaptation. *Physiological Reviews*. 2007;87:873–904.

Thayer JF, Lane RD. A model of neurovisceral integration in emotion regulation and health. *Biological Psychology*. 2000;74:224–242.

Sapolsky RM. Why Zebras Don't Get Ulcers. Holt Paperbacks, 2004.

National Institute for Health and Care Excellence (NICE). Generalised Anxiety Disorder and Panic Disorder in Adults: Management (CG113).