

Many people experience episodes of short-lasting but intense anxiety, or panic, for some time following a clot. These experiences were described by one patient as **post-thrombotic panic syndrome**, and it felt so appropriate we have adopted this name.

These episodes differ from the experience of lower levels of longer-lasting anxiety, which we address in another information sheet (Coping with worry). They generally reduce in frequency and severity over time. although some people may experience them for many months.

WHAT IS PANIC?

People who have experienced a blood clot often experience significant anxiety when they later experience sensations similar to those of their original clot. These sensations can trigger anxious thoughts (Am I having another clot?!...) and a series of physiological processes that, at their worst, may lead to a full-blown panic attack.



PANIC ATTACK SYMPTOMS



Dizziness



Breathing difficulties



Chest pain



Nausea & vomiting



Body Tremors



Sweating



Pounding heart



Fear

PANIC DOES NOT JUST ARISE OUT OF THE BLUE

It typically develops through a number of phases:

The trigger: Panic may initially be triggered by sensations like those experienced at the time of the clot. These include:

- benign sensations within the body as it adjusts to the presence of remnants of the original clot
- sensations occurring as a result of actions you may take; walking too fast or walking upstairs may lead to feelings of shortness of breath, calves may be painful due to exercise, and so on
- other reminders of the time when the clot occurred: going into hospital, smells, sounds experienced at the time.

Sometimes just thinking about the time when the clot occurred or its future consequences can be enough to trigger a panic, particularly if this experience was very frightening.

Worrisome thoughts: These sensations can trigger anxious thoughts. In particular, we begin to think of them as **symptoms** of ongoing problems, rather than **sensations**: "Am I having another clot? Is the clot still there? Is it this time that things go badly wrong?" These can be alarming and result in actively checking for evidence of a new clot or other problems.

High levels of tension and disrupted breathing:

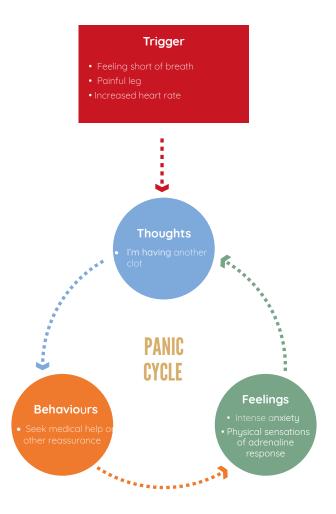
The anxiety associated with these thoughts and body checking can lead to a physiological response involving high levels of physical tension and shallow and rapid breathing. The body is adopting a 'flight or fight' response, fuelled by adrenaline, preparing to deal with the threat by either running away or dealing with it head on.

As part of this response, we begin to breathe more deeply to get oxygen around the body to support this activation. Unfortunately, the breathing pattern associated with panic (known as hyperventilation) is too good at oxygenating the blood. This excess oxygen leads to a range of symptoms: feeling faint, tingling, light-headed, and so on.

It also causes a second set of problems. Our normal breathing pattern is triggered by the brain sensing too much carbon dioxide in the blood. If high oxygen levels prevent this happening (because the carbon dioxide is replaced by oxygen), the brain does not trigger our normal breathing pattern; we feel out of breath and that our breathing almost has to be done consciously. Despite the already high levels of oxygen in the blood, we feel the need to try and breathe even more in, adding to feelings of panic and distress.

Our worst fears appear to be true: These distressing sensations appear to confirm the original fears: that we really do have a health problem. This leads to a vicious spiral of negative thoughts and increasingly distressing physical sensations. We become agitated and finding it difficult to focus on anything but how we are feeling. This may last for some time, but eventually does ease without any form of intervention. Importantly, despite its scary nature there is no evidence that a panic attack can directly cause physical problems.

Seeking safety: A common response to these sensations involves what are known as 'safety behaviours.' We try to leave the situation which triggered the panic, seek reassurance from others that we are OK, go to an A&E department for medical aid and so on. In the longer term, we may try to avoid the context associated with panic completely.



COPING WITH PANIC

To summarise, the three processes that result in panic are:



Anxiety provoking thoughts; typically, interpretation of benign sensations (being short of breath after overexertion) as signs of impending or actual thrombosis



Increased or rapid breathing (or more technically hyperventilation)



More general increases in physical tension, evident through a feeling of tension in the muscles throughout the body. This may be most noticeable in the stomach, chest, or arm muscles, but involves all or most of the big muscles in the body.

The good thing is that by changing each of these processes, we can gain control over feelings of panic, learn to reduce their impact and prevent them occurring in the first place.

Here are some relatively simple strategies you can use to manage them, and a suggested plan of action that can be used at times of panic.

Give yourself time.

The key is to use all the strategies in a planned sequence. They may take a few minutes to initiate and become useful; but they will help. So, when you feel the sensations linked to panic, take time to manage them.

Take time to calm your thoughts, then your breathing, and then your overall relaxation levels. Although this may take a few minutes, the time it takes to engage with this process is unlikely to have any adverse impact on your health. Five minutes calm down time is minimal when compared to the time it will take to seek medical help, spend time in A&E while you wait to see a doctor, and so on. The cost of engaging in these strategies is minimal, but the benefits can be significant.



Calming thoughts

In some ways panicky thoughts are the most difficult things to alter, because they come quickly to mind, and are clearly alarming. Nevertheless, because they are the trigger to panic, it is important to address them. The key here is to give yourself:

- 'Calm down' messages such as, 'I've had these sensations before, and they did not mean I was having another clot'. I may feel like... but it's not doing me any harm.'
- Reminders to use the breathing and relaxation exercises described below.

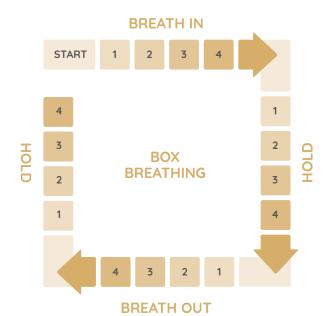
In the cold light of day, these thoughts are relatively easy to evoke. You may even think them after your panic subsides. So, the content of the thoughts is not the problem. It is the timing. The key is to bring them to mind as soon as you begin to realise you are feeling anxious. The automatic assumption is that you are having a health problem... try to shift this to thinking 'I am beginning to get panicky' and then evoke the calm down messages. Delay can mean you are too far into the panic process for them to be of maximum benefit.

A SIMPLE BREATHING EXERCISE

Controlling and slowing breathing is central to managing panic. This helps get rid of the build-up of excess oxygen causing the original symptoms of panic. This control can be achieved by (i) slowing the breathing and (ii) making sure you fill the lungs with air.

Slowing the breathing

One simple technique to slow your breathing is known as 'counting the square' or 'box breathing'. This involves imagining a square with each side representing a phase of your breathing, and counting to a set number (around 4 – but don't worry if you cannot manage this, keeping a calm rhythm as slow as you can comfortably manage is the key) along each side of the square as you breathe.





Deepening the breathing

To add to the benefit of slow breathing, you can breathe in a way that really fills the lungs with air, allowing the oxygen to escape and the carbon dioxide to get into the blood.

There are two sets of muscles that control our breathing: the intercostal muscles between the ribs, and the diaphragm at the bottom of the lungs. We tend to use the intercostal muscles when we are panicking, but this usually means that we draw air only into the top of the lungs and don't maximise the movement of oxygen and carbon dioxide. Using the diaphragm fills the lungs with air and maximises this process. So, this is the optimal type of breathing.

To find out whether you naturally use the intercostal muscles or diaphragm try this simple test. Sit down and rest back in a comfortable chair, with one hand on your chest and one on your stomach and breathe deeply a few times. Take a note of which hand moves the most.

- If the hand on your chest remains fairly still and your stomach moves out and in as you breath, then you can safely assume you are already using the diaphragm.
- If the hand on your chest moves, and the stomach remains fairly still or even goes in, then you are using the intercostal muscles.

If the latter is true for you, you would benefit from learning to switch your breathing to this more effective form of breathing, using the diaphragm. Unfortunately, there is no magic way to shift from one form of breathing to the other. However, practice and consciously trying to push your stomach out as you breathe can help achieve this. It may not be pretty, but it's pretty important!

Practice makes perfect

To control breathing when panicking takes practice. So, it's worth spending a few minutes at odd times in the day (when watching TV, sitting at your work desk, sitting in the car or bus and so on) practicing calm breathing. There is a link to a YouTube video at the end of this information sheet, illustrating the ideal pace of this exercise.

REDUCING MUSCLE TENSION

Slow breathing should lead to a feeling of relaxation by itself. But there are a number of simple general relaxation strategies that can add to its benefits These focus on relaxing the whole body. The goal is to be as relaxed as possible at the time you are experiencing stress or panic. This does not mean lying down or taking time out. It means getting rid of excess tension – damping down the flight-fight responses - while still getting on with life.

Learning to relax when feeling panicky is a skill that takes a bit of time to learn and may not immediately feel of benefit. It truly is a case of practice makes perfect! It involves three stages:

- Learning the basic relaxation skills
- Practicing during day-to-day activities
- · Using when feeling panicky

Learning relaxation

The relaxation process most commonly taught is called Jacobson's deep muscle relaxation technique. This involves alternately tensing and relaxing muscle groups throughout the body in an ordered sequence. The order in which the muscles are relaxed varies, but a typical exercise may involve the following stages (the tensing procedure is described in brackets):

- hands and forearms (making a fist)
- upper arms (touching fingers to shoulder)
- shoulders and lower neck (pulling up shoulders)
- back of neck (touching chin to chest)
- lips (pushing them together)
- forehead (frowning)
- abdomen/chest (holding deep breath)
- abdomen (tensing stomach muscles)
- legs and feet (push heel away, pull toes to point at head: not lifting leg).

There is a link to two relaxation procedures at the end of this information sheet. These talk you through the relaxation process. You can download or listen to them as they pace you through the process. You need to practice this process until you feel confident and are able to relax fully before moving to the next phase. But first, some hints about using them:

- Ideally, practice relaxation on a bed or chair that supports your neck, as you cannot relax fully if you are having to support your neck. Headphones or other strategies to avoid interruption or disruption by noise are also important.
- Relaxation comes with practice. Ideally, practice once a day for a week or so in this phase. Only practicing once or twice or leaving big time gaps between practices will slow things down and reduce the benefits.

 Many people feel so relaxed at the end of the practice they fall asleep. Don't! The aim is to learn a skill to allow you to relax to order. If you fall asleep, then you are not learning the skill. So, try to practice relaxation at times you are not too tired. And if you want to use relaxation to help you get to sleep, then use it when in bed. But stay awake during your practice.

Using relaxation

In life, its generally impractical to use the full tension/relaxation process when you are feeling panicky in the real world. So, the goal is to use only the relaxation phase (and not the related tension stage) and to reduce your level of tension to what is needed in the situation where you are feeling panicky. If you are at home and can relax on your bed, you could do a full relaxation procedure, but if you are out and about the goal is to discretely relax as much as is reasonable: to get rid of excess tension.

To be able to do this, it's worth practicing going through the muscles in the body relaxing them as much as possible regularly through the day. This both prepares you to relax to order when you feel panicky, and may also reduce the risk of panic, as it stops you getting slowly more tense, and therefore more prone to panic, through the day.

Putting it all together: an action plan

The key to managing panic is **preventing panic**. The strategies described here are simple to implement and of proven benefit. But it is easier to use them before panic has taken over. So, having a simple plan of action can be useful. A good plan involves:

- Be aware of times or situations in which you have previously felt panicky. Be ready to spot any early feelings of anxiety or panic and deal with them before they become too difficult to handle.
- 2. If you have sensations that make you fearful of having a further thrombosis, don't immediately assume they really are symptoms of one. Remind yourself that you have had similar experiences before, and they were not the recurrence of a clot. Allow yourself the possibility that they are normal sensations and immediately begin to use the breathing and calming exercises. Don't get hooked into thoughts that this inevitably is another thrombosis. Instead, give yourself the calm down thoughts.
- 3. Begin the breathing exercises and, when you feel able, focus on deep muscle relaxation and becoming as relaxed as you can.
- 4. Only if the symptoms continue after you have your breathing and relaxation under control, consider seeking help.

Some publicly available resources

Box breathing video: - counting the square

https://www.youtube.com/watch?v=FJJazKtH_9I

Progressive muscle relaxation, with different voices:

https://www.youtube.com/watch?v=ihO02wUzgkc



Links to support groups

Thrombosis UK (www.thrombosisuk.org)
Email: admin@thrombosisuk.org

