

What you can do about anxiety before surgery



Who likes being admitted to hospital? Almost everyone gets at least uneasy about having an operation. Anxiety like this is not going to cause complications, but it might slow down recovery after the operation. It can make it hard for people to concentrate and to understand medical information. That means that reducing anxiety does not just help you feel better. It also clears your head and makes it easier to understand what is happening.

There is no cure-all for anxiety. But you can look for options that help you personally. And you will not be on your own to handle it. Hospitals should offer a variety of ways to support you. Your family and friends might also be able to help. There are lots of ideas for what you could do, but the research on what might actually work is still in the early stages. There are not many comparison studies that can prove what helps and what does not.

1. People who are not anxious are the exception

Paul

Of course there were fears too. I wasn't afraid of the cancer, though, but mostly of the anaesthetic ... I didn't know what the doctor was going to do and whether I would need to go into intensive care.



Surgery is a part of medical daily life. Every year, 1 or 2 out of 20 people (5 to 10 %) have an operation [1],[2]. For doctors and hospitals, surgical procedures are routine. It is another thing entirely for patients, though. It is completely normal to be afraid before having an operation. In fact, it would be unusual to be totally relaxed before having surgery.

It is important to know that your fears, even when they are very strong, will not have an effect on the outcome of the operation and will not delay waking up after anaesthetic [3],[4]. There can be health consequences of anxiety, though, if a person does not understand information that is important. For example, he or she might not understand explanations about what to do to help recover after surgery. This is particularly a risk for much older people.

The first action against anxiety is to get to understand it. Anxiety is a very strong feeling. Its roots lie deep in the biological history of humans. There were times that people could not have survived without feeling fear. One of the roles of anxiety is to warn us away from dangers that could be too big for us. So the body prepares itself to escape from the risky situation. Anxiety speeds up our heart rate, pushes up our blood pressure and disrupts sleep - we are then prepared to fight or flee.

Times have changed, though. Today fighting or running is rarely the answer to the kind of challenges we face. So now fear is sometimes just a set of unpleasant symptoms that is not helpful [5]: pounding heart, raised pulse, a racing heart, irregular heartbeat, nausea, a nervous stomach, shortness of breath and/or disturbed sleep [3].

If you cannot do anything about the cause of anxiety, it can develop into strong physical stress [5]. It is important to understand that physical signs of anxiety before surgery usually do not last long, and are completely normal. They are not a sign that your illness is getting worse.

2. Coping with anxiety before surgery

Paul

I approached my fears intensively, totally directly and upfront.



Most people learn over time how to manage their own anxieties and handle frightening situations. But going into hospital and having an operation is often a completely new situation.

People's strategies for coping with anxiety can be very different. Some people try to get prepared for anxious or stressful situations. They might start getting informed early and talk with other people about their concerns. Others use exercise or relaxation techniques like deep breathing. Some distract themselves with reading or music. Others turn to their religious or spiritual beliefs and advisors. And there is medical help, too. For the night before the operation you could have an anti-anxiety medication (sedative) or a medication to help you sleep.

Paul

I could overcome my fears well by getting very active. I went to the gym, and then the thoughts just went away.

The options for relieving anxiety before surgery fall into three groups:

What can I do myself?

- Get informed: Knowledge can reduce insecurity.
- Plan: You can make arrangements with doctors and nurses, for example, about what pain management you will get.

- Find ways to relax and keep your mind away from your worries.

What can family and friends do?

- Offer to go along to the hospital: Support protects people from the fear of being alone.
- Help keep the person's mind off the operation.

What can doctors, nurses and hospital staff do?

- Try to keep organisation running smoothly: Short waiting-times and friendly personnel reduce the strain.
- Ensure that patients have access to social workers, and to spiritual advisors if they are religious. Counselling services may also sometimes be needed.
- Offer a variety of information sources for different needs.
- Offer appropriate sedative and sleeping medications.

Many of these points sound obvious. But people have completely different triggers for their anxieties. As a result, they often need and develop completely different coping mechanisms. For example, someone who is afraid of anaesthetic needs different answers than someone who is mostly afraid of being away from their familiar surroundings. There is no universal panacea. The following suggestions describe a whole spectrum of possibilities, but research to prove what actually might work is the exception rather than the rule.

3. What can patients do for themselves?

Paul

When we got home on the evening we got the diagnosis, then we just hit rock bottom. We cried a bit.

Usually there is a good reason for an operation. The procedure might be able to restore health or even save your life. But making a decision about having an operation often involves choosing the lesser of two evils: "What are the consequences I need to take into account if I have the operation? "What will happen if I don't have the operation?" Many people who consider the risks before an operation are unsure of the answer to the key question: "Is this operation really necessary?"

3.1. Information

Paul

We faced the fears together. It depends on how you approach the topic. You should talk about it and try to find

something positive in every situation.

A first step is to get informed about the alternatives, and what the advantages and disadvantages are. Often, that is not easy. There are so many sources of medical information, and the advice is often conflicting or confusing.

Information for people having surgery is offered in many ways:

- Group sessions (a personal talk or a series of lectures, and self-help group meetings)
- Individual counselling
- Written information in brochures and books
- Educational packages
- Films, tapes and CDs
- Websites

So-called decision aids, which are developed specifically for particular illnesses, are likely to help reduce anxiety when you have to make important health decisions, including choosing surgery [6]. There are paper and computer or internet versions of decision aids. The core idea is to help people find out what is important to them, using a combination of questions and information. Once someone is clear about their own preferences, they might be surer about making the right decision for them. However, structured decision aids are only available for a few illnesses, and they have been offered by doctors fairly rarely up to now.

Usually people will rely on more typical sources of medical information, like television, books, magazines, the internet or special brochures. They also get advice from other people in their social circle, or from information call centres, patient advisory services and self-help groups.

People's reactions to health information can be very different. Some people find information in books and brochures very helpful [7], [8], [9]. Other people prefer not to read anything at all. At least in the area of hip and knee surgery, there is evidence that patient education materials can reduce anxiety [7], [8], [9]. None of the trials of these materials found that patient information increased anxiety.

3.2. Talking with the surgeon

Paul

The doctor was an excellent surgeon. He showed me what would happen and where the artificial bowel opening would go. He did that really well.

Patients have information coming at them from many directions. People they know tell them about their own experiences, particularly stories of medical disasters and surgery 'gone wrong'. Different doctors say things which contradict each other or are confusing. Sometimes these things trigger anxiety. One way to deal with this is to talk with your own doctor about the things that are frightening or confusing you. Many misunderstandings can be solved this way. Some experts advise patients to write down a list of questions to ask their doctor, or to get a second opinion from another doctor. That is not easy for everyone to do. However it is not clear if these strategies reduce anxiety before an operation, or whether they might be helpful or harmful in other ways.

3.3. Getting an explanation about planned surgery

Simon

If I was ever in that situation again, then I would talk about what could happen. It is important that you say these things out loud and don't let a wall be built between yourself and your family.

It is the responsibility of a surgeon to inform patients about what will happen during a procedure and explain the risks. Surgeons need to do this for legal reasons on their own and their hospital's behalf. This formal explanation may not address the issues that are on the individual patient's mind. There are some people who do not want to know all the details about what is ahead of them. These explanations might also increase some people's anxiety before an operation.

However the majority of patients do not complain about hearing too much. In fact, complaints about too little information are more common, and many patients say that they did not get enough explanations from their doctors [10], [11]. Of course, enough means quite a different thing from one person to the next. Some people want to know exactly what is going to happen during a procedure or operation. Others want to be told about what they will see and feel. They want advice about how to cope with the experience [12]. Consultations before surgery should provide an opportunity to clear up any points that are

worrying you:

- You could reach agreement with doctors or nurses about what should happen if they find a problem during the operation.
- You can have medical or personal wishes noted in your medical records.
- You can decide if there are friends or family that need to be informed about what is happening, and if there is anyone who could make decisions on your behalf if necessary.
- You can discuss what is available for patients and carers and prepare written instructions about your treatment preferences or a 'living will'.

3.4. Relaxation and distraction

Just about every relaxation or stress-reducing activity that people use in everyday life has been suggested as an answer for anxiety before surgery. But just because something is recommended, does not necessarily mean that you can rely on it helping you. No specific relaxation technique has really been studied enough to be sure that it is likely to help anxious people just before an operation. So you really just need to try to find out what works for you personally.

There is evidence that for anxiety in general, massages can provide some relief [12]. Hospitals and clinics do not generally offer a massage to patients waiting for surgery, though. And we do not really know whether a single massage session before an operation will help. The evidence is also quite thin for other common stress relief techniques just before surgery, like reflexology (foot massage), hypnosis, relaxation tapes and television.

There have been some studies of guided visual imagery for preparation for surgery [13], [14]. Guided visual imagery involves having someone in person or on tape help you imagine what is going to happen, in a positive way. You imagine what things will look like, and how you will feel physically and emotionally: a kind of rehearsal. There are similar tapes that lead you through relaxation techniques like deep breathing, meditation or muscle relaxation. There are now many of these kinds of tapes and CDs on the market, and some of them have been made especially for people having surgery. They have not been tested in research trials, though, so we

cannot say for sure whether they are likely to help relieve anxiety.

Some hospitals offer relaxation training themselves. This is not generally offered for just before an operation. Mostly patients are then busy adjusting to the environment. They might also have a chance to talk with the anaesthetist or surgeon.

3.5. Music

Music is closely related to relaxation techniques. Researchers have tested using music at various times before surgery. Although the evidence is not very strong, the general picture suggests that many patients were less anxious when they listened to music for some hours in the last 24 hours before their operation [15], [16], [17]. The people who listened to music beforehand were less tired after the operation and they needed less painkillers.

The question of what type of music might help is still open. Some researchers have said it does not matter what style of music it is. Other have concentrated on people's own choice of their favourite music, or particular calming music, ambient sounds or classical music and even harps. There is no convincing evidence that a particular type of music works better. It could be just a matter of taste.

4. What can the hospital do?



There are some things that patients should be able to take for granted from a hospital. For example, that the staff will have an understanding of the personal needs of the patients, and be organised so that people's waiting times are as short as possible.

Waiting for a long time on the day of the operation can increase anxiety [18]. Some hospitals put particularly anxious patients first or soon on their operating lists.

Quite practical things, like providing information about how to get to the hospital with public transport or a car, and where to park can help make the experience of going to hospital less tense. Almost all hospitals will have professional people that patients can talk to for support,

including religious advisors, social workers, psychologists and community volunteers. These people can offer support and assistance.

Some hospitals and birth centres offer routine tours ahead of time through their clinics, including examination rooms and operating theatres. Some have comfortable waiting rooms for family and carers. It can also be helpful if hospital staff prepare you for what you can expect when you wake up in the recovery room, and what will happen then. Some hospitals allow family or friends to wait next to the bed in the recovery room.

5. Sedatives and other anti-anxiety medicines

Paul

If I hadn't had a sedative then I would have been up all night with my head full of thoughts.

Your doctor can prescribe a medicine to help you sleep the night before an operation. It is important for the hospital to know what you are taking, so it is best if you organise this with the same doctor caring for you with the operation. If you are already in hospital the night before, a medicine to help you sleep will usually be offered, although it is not always suitable for everyone. This medicine might be out of the group of sedative drugs called benzodiazepines [19]. They reduce anxiety and help you unwind, and they make you sleepy at the same time.

Sedatives might also be an option in the last hour or two before going under anaesthetic. The different possible medicines have not been tested enough to be sure which type is the best before surgery.

People having day surgery are not always offered anti-anxiety medicine. One of the reasons some clinics do not do this is because of concern that it might mean that patients will not be ready to go home on their own that day as planned if they are affected by sedatives. However this fear may not be justified with lower doses. After analysing 15 trials with more than 1,300 patients having day surgery, researchers were able to come to the conclusion that anti-anxiety medication does not increase the time it takes to recover after day surgery [19].

It is possible that other types of medicines than benzodiazepines might be suitable for anxiety before surgery. They might be used in some hospitals. On the list

of candidates are the so-called beta-blockers. Although there is not yet enough evidence to be certain, researchers found some suggestion that these drugs might mean that people are less anxious but more alert than if they take higher doses of some benzodiazepines [19].

6. What can parents do when their child is having an operation?

In the last few years many hospitals have worked hard to ensure that surgery for children is as anxiety- and pain-free as possible – as well as considering parents' needs and concerns. There has not been enough research, though, to know for sure what the best thing might be to try.

6.1. Options for care

For many types of surgery, children now go into hospital on the day of the operation and then go home as soon as possible. Parents can usually stay with their child at least until they are going under anaesthetic, and then be at their side when the child wakes up in recovery, too. If there is no parent or other support person there, the child might be more afraid. However, just as with other ways of trying to help children through surgery, we cannot draw a lot of conclusions from research about exactly what helps best.

If a child needs to stay overnight in hospital, parents are usually allowed to stay with them. Children's hospitals usually allow parents to stay with the child until the child is going under anaesthetic, and again, to be there when they wake after the operation. However this is not routine in all hospitals.

Hospitals also have different routines for how long children have to fast before surgery. There is some evidence that children who are allowed to have at least some water or apple juice to drink up to two hours before the operation are more comfortable and calm [20]. Drinking up to two hours before surgery has not been shown to be harmful. Of course, this will also depend on the kind of operation the child is having. If you would like to read more about this research, we have summarised it here (URL: <http://www.informedhealthonline.org/index.92.en.html>) for you.

6.2. Distraction and relaxation



Parents can help to relieve their children's anxiety about having an operation. Children might be better prepared for their experience if someone reads to them or tells them stories. Drawing pictures about the hospital and what is going to happen is another option. Some hospitals have puppet shows and plays to entertain children and/or to help prepare them for their operation. Some have children's books they can lend the children. Some even have special entertainment programs for their child patients, such as radio programs or a special TV channel.

Some hospitals also have clowns, whose aim is to make children laugh and strengthen their courage. Whether or not humour is the right medicine against fear before an operation remains an open question.

6.3. Anti-anxiety medicines

Children might also be able to have low-dose sedatives to calm them if they are especially fearful. However there is not a lot of research investigating pre-surgery medication for surgery for children specifically.

7. Older people

One of the groups whose needs before surgery have been neglected by research trials is older people. Yet the strangeness of hospital surroundings is a particular burdensome and confusing experience for many older people. They need particular attention and support to be sure that they understand what is necessary for their recovery, and so they can maintain their independence. We cannot automatically assume that what helps younger people will also be appropriate for people who are much older. Researchers still have quite a lot to do.

Glossary

evidence

Evidence is what we call scientific proof from well-conducted, good-quality scientific trials that have been carefully designed to answer specific questions. Depending on the types of questions, different scientific research methods (types of study) are most appropriate to find reliable answers to these questions. Randomized controlled trials (RCTs), for example, are the best way to get reliable evidence on the effectiveness of medical treatments (interventions). This type of study, however, is not the best form of evidence for all possible questions, and does not provide the best answers to all kinds of questions, either. Epidemiological studies, for example, are very suitable for establishing well-founded proof for the spreading of a disease in the population.

benzodiazepines

Benzodiazepines are a large group of psychoactive drugs with a calming, anti-anxiety and anti-spastic effect. They are used as hypnotics and sedatives. Their effect lasts from several hours to several days. One of their major disadvantages is that they can become addictive even if used for a relatively short time.

diagnosis

The term diagnosis (from the Greek word *diagnosi*: “distinguishing”) is used to mean the identification and naming of an illness or a disease. A diagnosis is usually made by evaluating the medical history, symptoms and test results. The tests include both comprehensive physical examination and blood tests or examinations using medical instruments such as ultrasound or x-ray.

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The German Institute for Quality and Efficiency in Health Care (IQWiG) was established by legislation to provide evaluations of the effectiveness, quality and efficiency of healthcare services. This includes the assessment of medicines as well as the publication of health information for consumers and patients.

Evidence basis of our health information

Our information is based primarily on systematic reviews of the effects of health care. Systematic reviews are necessary to gain an objective picture of health care. In order to do this, a clear question is formulated. Researchers then find all the relevant studies that could answer this question. They then evaluate those studies.

You can find a list of the evidence and other scientific literature on which this information is based at [**www.informedhealthonline.org**](http://www.informedhealthonline.org)

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