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Breast cancer: What treatments have been shown to offer relief for lymphoedema after breast cancer?



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Lymphoedema (or lymphedema) is a swelling of the arm, leg, breast or other part of the body caused by a build-up of lymph fluid. "Lymph" is a clear fluid that circulates throughout our bodies. The word "oedema" comes from the Greek for "swelling", and the condition is caused by fluid retention. The lymph or lymphatic system helps protect our bodies from infection. Just as the cardiovascular system circulates blood around our bodies through a network of blood vessels, the lymph vessels circulate lymph around the body.

The lymph vessels drain fluid out of the tissues and then carry it to glands called the lymph nodes. The lymph nodes filter out and destroy bacteria and other harmful substances. The lymph vessels then send the cleaned fluid back into the bloodstream.

Breast cancer surgery and radiation, especially in the underarm area, often disrupts the lymphatic system. This is because lymph nodes under the arm may be removed during the surgery, or because lymph nodes and vessels could be damaged by the surgery or radiation afterwards. Surgeons will now often use techniques that limit damage to the lymph nodes, to try to prevent lymphoedema. Nevertheless, at least 10 to 20% of people who have breast cancer surgery and radiation will get lymphoedema in the arm on the side where they had treatment within the first six months to two years afterwards. This is called secondary lymphoedema, because it is caused by another condition that happened first (breast cancer) or by the treatment for that condition. You can read more about lymphoedema and the lymphatic system and see diagrams here (URL: <http://www.informedhealthonline.org/index.459.en.html>) .

Oedema can have other causes, so it is important to see your doctor to make sure that it really is lymphoedema. You can read more about the different forms of oedema, their causes and symptoms here (URL: <http://www.informedhealthonline.org/index.458.en.html>) .

Lymphoedema can become painful and distressing if untreated

Many people who develop lymphoedema will have mild symptoms that never get worse. But it is not possible to

predict right after breast cancer treatment who is going to get lymphoedema. It is also not possible to be sure, when symptoms start, for whom the condition is likely to get worse.

When lymphoedema starts, the fluid builds up in the body tissue. This causes swelling and possibly some changes to the skin, which might be hardly noticeable at first. But if it gets worse, it gets more painful and there can be so much swelling that the affected arm is obviously bigger than the other arm, although other people may not notice. Lymphoedema can also restrict movement and use of the arm. Often people just feel that the arm is tight or heavy, or they start to notice that the rings on their fingers are getting tight.

If the arm stays swollen, then there is an increased risk of getting infections inside the arm because the lymphatic system cannot protect the area properly. Long-term swelling inside the tissues can also mean that the fluid gets deep into the fatty tissues, and the tissue under the skin changes and can start to thicken and get more solid. Once that happens, lymphoedema gets much harder to treat. In fact, if it is not treated, lymphoedema often becomes chronic and gets worse over time.

Starting treatment early might make a big difference in the long term

There is not enough research to give good predictions of what will happen in the long term with lymphoedema caused by breast cancer treatment. There is a trial involving 65 women that gives some idea of what the benefits of early treatment might be. That trial compared two groups of women: in one group every woman was monitored and treatment was started as soon as lymphoedema was identified, and in the other they waited until a need for treatment was identified by the woman or her doctor.

In that trial, about 1 out of every 2 women who did not have early treatment still had lymphoedema after 5 years. But only half as many women still had lymphoedema if they had very early detection and treatment (that is, 25% of all the women who were monitored compared with 50% of the women who waited).

We explain how to tell if you might have lymphoedema, your treatment options and how other women cope here (URL: <http://www.informedhealthonline.org/index.459.en.html>) .

Some answers from research on lymphoedema after breast cancer

Lymphoedema after breast cancer is generally a long-term problem because the body tries to replace the damaged lymph vessels, but that is not always possible. The symptoms can also come and go. That makes it hard to be sure whether a treatment has helped or whether the symptoms would have eased for a while anyway.

Researchers from Australia, Canada and Finland looked for randomised controlled trials that could help show for certain whether any treatments are really better than others.

In randomised controlled trials, volunteers agree to have their treatment decided by researchers purely by chance (randomised). The researchers assign them either to use a treatment that is being tested or to join a control group, where the volunteers get a different treatment, no treatment or a dummy treatment (placebo). This is done to try to ensure that there are no differences between the groups apart from the treatment they receive, so that you can be fairly sure that any differences between the groups at the end of the trial are due to their treatment. Randomised controlled trials are done when it is not certain what treatment works. Several good trials with enough people in them are usually needed to get a solid answer to a question about healthcare treatment.

All the researchers who looked for trials in this area agreed that there are not enough good trials that can provide definite answers about what can be expected from lymphoedema treatment. Although there have been at least 13 randomised controlled trials of lymphoedema treatment, only one of those trials was of such high quality that researchers can be confident about the results. This means it will be some time until definite research results are available about what works best.

The best studied option is self-care using compression garments

The research did find some clear answers though: none of the drugs that are sometimes used to try to manage lymphoedema after breast cancer have been proven to lead to a major reduction in lymphoedema symptoms. Pneumatic pumps (compression pump therapy) to try to increase circulation through the lymphatic system have also not been proven to help. Surgery cannot change the underlying problem.

The best candidates for relief are compression bandages or garments that are worn all through the day and then removed at night, although some people wear them at night too. These "sleeves" squeeze the arm a bit, which makes the lymph vessels pump lymph through the body more effectively.

A kind of massage called manual lymphatic drainage might also be able to help. People can learn to do this for themselves from trained therapists and/or get the treatment from therapists. Because there is no one treatment alone that can eliminate lymphoedema, it is common to use a combination of treatments, including compression garments, manual lymphatic drainage and gentle exercises to try and keep the arm mobile.

Exercise and using the arm normally after breast cancer has been controversial, because for a long time it was believed that stress on the arm might cause lymphoedema or make it worse. However, research suggests that exercising the arm could in fact help rather than make lymphoedema worse. If your doctor or physiotherapist has not already discussed exercise with you, ask about what kinds of exercise could be suitable for your particular circumstances. Other forms of exercise like walking or cycling have not been shown to make lymphoedema worse either.

If you are overweight, some new research suggests losing weight might reduce your lymphoedema as well. You can find out more about self-care and other management options [here](http://www.informedhealthonline.org/index.459.en.html) (URL: <http://www.informedhealthonline.org/index.459.en.html>).

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Glossary

bacteria

Bacteria are micro-organisms that, unlike viruses, can exist on their own. Viruses, on the other hand, can only exist inside a living cell. Most bacteria are not harmful to people, and some are actually beneficial. Bowel bacteria support bowel health. However if they get into the urinary system, they can cause an infection there. Doctors prescribe antibiotics for illnesses where bacteria need to be stopped or killed off. Immunisation is also possible against some bacterial infections, such as diphtheria, tetanus or whooping cough.

physiotherapist

Physiotherapy is a recognized health-care profession, which in Germany does not require an education on university level such as medical studies. Physiotherapists have completed a three-year training including basic medical knowledge. They are not allowed to make a diagnosis, however, but apply different kinds of therapy on the basis of a doctor's diagnosis or instructions. Physiotherapists mainly use so-called physical techniques such as therapeutic exercises, massage therapy, ultrasound or light therapy.

infection

In medicine, we speak of an infection when a person has caught a germ (an infectious agent). This germ can be a bacterium, a virus, a fungus or a worm. The germ multiplies and then either spreads throughout the body or only attacks one particular organ. As long as there are no signs of a disease, this is called an asymptomatic infection. When the body shows a reaction to the germ in the form of symptoms, this is called a symptomatic infection (an infectious disease). The period between the moment the germs enter the body and the moment the first symptoms of the disease appear, is called the incubation period. It may last a few hours or days, or even many years. An infection does not necessarily have to lead to the onset of a disease.

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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**

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