



Breast Implant Illness – what we know, and what we don't know

What is Breast Implant Illness?

A small proportion of women who have breast implants (for both aesthetic and reconstructive purposes) self-identify as having a number of symptoms they believe arise from the presence of their implants. Whilst not a medical diagnosis, they refer to their symptoms as Breast Implant Illness (BII).

What are the symptoms of Breast Implant Illness?

As stated above, Breast Implant Illness is not a medical diagnosis, but rather a term developed by those who have a variety of symptoms they feel are related to their breast implants. These include tiredness, “brain fog”, joint aches, immune-related symptoms, sleep disturbance, depression, hormonal issues, headaches, hair loss, chills, rash, hormonal issues and neurological issues.

Why has BII suddenly come to light?

It appears that the recent increase in patients reporting symptoms of BII is related in great part to social media. One Facebook group alone has more than 50,000 members who report symptoms of BII. This may account for the sudden increase in awareness of BII, however, BII is not an official medical diagnosis (see below).

Could these symptoms be caused by any other factors?

There are a variety of other reasons these symptoms might be found. These include other background illnesses or hormonal changes. In addition, there have been a number of scientific studies investigating similar symptoms experienced by women in the population in general.

For example, a Swedish study looking at a random sample of 4,200 women between 35-64 years old found a significant number experienced similar symptoms to those ascribed to BII, although they did not have breast implants. They concluded that the symptoms related to stress and depression.

A 20-year study on a Danish study population with breast implants regarding musculoskeletal symptoms concluded that interestingly, the occurrence of mild, moderate and severe musculoskeletal symptoms was generally lower among women with implants, compared with women with other cosmetic surgery and women in the general population.

Do symptoms of BII improve when breast implants are removed?

On the whole, around 50% of women who self-identify as having BII feel that their symptoms improve after implant removal – sometimes temporarily and sometimes permanently. It therefore appears that removing breast implants does not necessarily improve symptoms in everyone. There is no research



demonstrating which symptoms may or may not improve with implant removal – with or without removing its surrounding capsule (scar tissue).

In more detail:

A study on breast implant removal from 1997 (when older, less robust implants were still in use) looked at women in whom 186 implants had been removed. Over half the implants were ruptured or leaking, and many had other issues. Therefore, in this study population, the women would theoretically have had a significant exposure to silicone from within the implants (compared with the more modern implants used today). Immune system blood tests showed no difference in levels of autoimmune antibodies between the study population and a control group of women without breast implants. The small number of women in the study group with diagnosed autoimmune conditions did not have any improvement when questioned over 2-years after implant removal. However, the majority of women reported an improvement in their psychological well-being after implant removal.

Is there medical evidence linking medical grade silicone to immune system problems or other diseases?

In short, the answer so far is no. Medical grade silicone is derived from the natural element, silica. Whilst silica has been shown to activate the immune system, silicone used in breast implants is very different, and to date has not been shown to cause any disease. Medical silicone does not exist in nature and is created to form polydimethylsiloxane. Medical grade silicone has had antioxidants, dyes, and plasticizers removed during processing.

Whilst there is no current evidence to support a direct link between breast implants and any specific disease process, it does not mean further research is not indicated. As stated below, further new research is being conducted principally in Australia and USA. It is important to recognize that in rare diseases (of any type), it can take many years to come to a scientific conclusion. In addition, there are many factors that can influence and confound the interaction of a patient and her breast implants – all of which have an impact on studying an entity such as BII.

A lack of evidence to date does not mean that the symptoms experienced by patients are not real. Therefore, as plastic surgeons, we take these symptoms seriously and are committed to supporting further investigation and research in this area.

Do tests exist for BII?

There are no tests that can show BII. However, there are a number of research studies underway, principally in Australia and the USA hoping to provide further information. In the meantime, there are tests that can be performed for autoimmune conditions. In a similar way to the population without breast implants, there are breast implant patients who have symptoms



(they attribute to BII) with positive immune testing and others where all tests show no abnormalities.

What scientific data are there that shows that breast implants actually cause the symptoms of BII or any other disease?

To date there is no demonstrable link between breast implants and any systemic illness. There have been a variety of studies designed to look at the safety of breast implants and these have also looked at specific autoimmune disorders and diseases. Overall, these studies have shown few or zero links between breast implants and any disease. These studies have not shown any consistent laboratory test abnormalities to enable a distinct syndrome to be defined or categorized.

However, as in all areas of science, “absence of evidence does not equal evidence of absence”. Therefore, further studies are on-going to investigate other possible links and symptoms in women with breast implants.

What should I do if I think I might have symptoms I identify with BII?

If you experience symptoms you feel might be related to your implants it is important you see a doctor. It is important to bear in mind that your symptoms might not be related to the implants, and that other medical investigations should not be overlooked or ignored. Therefore, you should involve your GP in the first instance to exclude any other underlying disease processes, such as autoimmune conditions, inflammatory conditions or neurological disease processes.

Should you wish for your implants to be removed, you should discuss this with your plastic surgeon. Most commonly, when patients are seeking to have their implants removed for symptoms they attribute to BII they request that their capsule is removed. This can either be done “en bloc”, referring to the whole capsule being removed containing the implant, or by other techniques. There is no evidence that “en-bloc” removal offers any benefit to the patient, and indeed this technique is more invasive and requires larger incisions. This should be borne in mind when discussing your situation with your plastic surgeon.

The “en-bloc” concept is one of the medical inaccuracies perpetuated on the internet and on social media. It is important to appreciate that sometimes it is impossible to remove the capsule without making a hole in it, even in the most experienced surgeon’s hands. Sometimes it is also not possible to remove the whole capsule, depending on how adherent it may be to the ribs, for example.

What is the risk of developing BII?

Due to the lack of official medical diagnosis, the disparate array of symptoms reported and the lack of definitive evidence, there is no “known” risk for BII. Many of the symptoms described by those identifying with BII are experienced by the general public on a regular basis, with or without implants. It is also



important to understand the other recognized risks of having breast implants – related to the surgery itself and the long-term possible effects of having breast implants.

In summary, Breast Implant Illness is a phenomenon being discussed increasingly on the internet. As no link between silicone breast implants and a specific disease has yet been identified, more research is underway. Plastic surgeons need to listen and acknowledge that their patients may be experiencing symptoms, but must also ensure a general medical work-up to investigate other causes. Any woman concerned about symptoms of BII should feel comfortable bringing this up with their plastic surgeon.

This information sheet is produced for patients based on the most recent and accepted scientific research available – June 2019.

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References added October 2022:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9208825/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9400612/>

<https://academic.oup.com/asj/advance-article/doi/10.1093/asj/sjac225/6671500?login=false>