WHAT BREAST IMPLANT USERS NEED TO KNOW

Breast augmentation and breast reconstruction are accident-prone procedures. The insertion of a breast implant drastically changes the anatomy and affects the quality of tissue in the upper chest, subjecting the user to time-dependent adverse effects not generally encountered in unimplanted individuals. Breast implants are of inconsistent quality, enhancing risks posed by the technology. Complications worsen with implant size and dwell time. Current implants are not significantly different from their predecessors. The following information may be of benefit to individuals contemplating implant insertion, removal and/or replacement:

• Implant durability and risks vary according to implant type and manufacturer. Implant users should maintain a record of the implant type, name of manufacturer, catalog and lot numbers, position of implant (subglandular, submuscular) and information about the implanting surgeon/facility. A copy of the operative report including product identification labels should be acquired following any breast-related surgery.

• During the insertion and protracted indwelling of a breast implant, the anatomy of the breast is drastically and irreversibly distorted. Muscles and ligaments are stretched, severed or removed. Other structures suffer atrophy over time resulting in loss of breast volume.

• Implants become surrounded by capsular tissue, the body's natural response to the insertion of a foreign object. Capsules thicken with time and calcify, more so for implants that release aggressive and inflammatory substances. It is mandatory that such tissue be removed when implants are explanted or replaced.

• The removal of a failed breast implant does not return the breast to its original shape because much of the tissue has been lost or resorbed. This may motivate users to undergo implant replacement using progressively larger prostheses. The outcome is rarely satisfactory and the esthetic improvement is habitually of short duration with each cycle leading to recurrent and worsening complications.

• Implant and capsule removal without implant replacement is a preferred option for symptomatic users. It may require removal of distorted tissue, including surplus skin, to return the breast to an esthetically acceptable shape, in particular if the implants were large.

• The evaluation of augmented breasts for determination of implant and capsule condition or cancer screening must be performed with minimal compression and under conditions which allow viewing of the space around the implant including between the implant and the chest wall. Traditional radiographic techniques for breast cancer screening rely on strong compression of the breast. Displacement and compression of the prosthesis towards the chest wall takes place concurrently. These techniques can be destructive to the altered breast structure and the prosthesis. Interpretation of such data is dependent on operator experience.

• Implant users are subject to adverse events secondary to fluid retention and delayed excretion of contrast agents used in diagnostic and MRI imaging. Accordingly, contrast agents are best avoided for individuals with a history of implant use as risks exceed the benefits such compounds provide in terms of diagnostic image quality.

• For implant users, the following abnormalities, revealed through radiographic or MRI techniques, should be brought to the attention of an appropriate health care provider:

- irregular implant contour with angular features
- presence of fluid pockets (hematoma, seroma)
- calcific deposits in contact with the implant and/or capsule
- separately-encapsulated dense material adjacent to the prosthesis
- presence of water-rich substances within the core of a silicone gel prosthesis
- presence of calcific fragments within a separate mass adjacent to the prosthesis
- evidence of a deflated saline-filled implant
- rapid change in breast shape or appearance of palpable breast irregularities
- sensation of sustained low grade 'burning' near the implant
- skin eruption, reddening or local swelling adjacent to the implant
- formation of a blister or noticeable skin thinning over the implant
- dark, localized skin discoloration (amber, blue, black)

• Users of saline-containing implants (inflatables, hydrogels, double lumen, etc.) are exposed to similar and often more acute risks. Water-based filling media undergo contamination with time, sometimes followed by sepsis. When leaky or deflated, such devices and the surrounding capsular tissue must be removed promptly.

• Implanted individuals should not breastfeed because of potential risks to the infant and the disruptive effects of breast engorgement on the unstable cosmetically-augmented breast.

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