You've just been diagnosed with breast cancer.

This nightmare begins in the dark where it is scariest because there are suddenly decisions affecting your life and longevity that you are asked, or sometimes told, to make without truly understanding your options or even how to begin to make decisions about radiation, lumpectomy, mastectomy or about reconstruction. I will try to break it down to something more like a decision tree, showing the pros and cons to each path, and giving a perspective on how the path might affect your life after breast cancer, or as a survivor with breast cancer.

First for most everyone concerned financially, you should know that there is a legal mandate for all insurance companies to cover breast cancer treatments, immediate and future, including reconstruction and procedures to achieve and maintain symmetry.

Primary Goal: Survival. If your breast tumor is just in the breast or just in the breast and lymph nodes, you will probably have to choose between lumpectomy plus six weeks of radiation and mastectomy. Both have the same long term survival expectation. The lumpectomy and radiation carries a slightly higher risk of it coming back in the breast and needing more treatment. Sometimes another lumpectomy or a mastectomy needs to be done if there is no clear margin with the first lumpectomy. This will be your choice, and your choice alone, to make with the help of multiple sources.

Considerations: In general the more advanced the disease the fewer considerations there will be as the treatment options will be fewer. While long-term survival is everyones' primary goal, personal considerations can be the best place to start finding your path as these are different for every patient. These are both immediate and long-term considerations

Immediate Personal Considerations

1) Nipple and breast sensation - this is best maintained by the lumpectomy and radiation approach. Most mastectomies can be done now preserving the nipple itself, but it will have significantly reduced sensation, despite likely preserved nipple reactivity.

2) Breast appearance - This is obviously in the eye of the beholder. Many women have no more ideal shape to their breast than that of the ones they were first given. Other women may

choose comfort and simplicity and "go flat" rather than reconstruct. In general, trying to do the same or similar procedure(s) to both sides is the most assured path to symmetry.

Large breasted women can better tolerate more of a lumpectomy without undo distortion of the breast. This may require rearrangement and elevation of the breast tissue to fill any void. In smaller breasted women or in a patient after multiple lumpectomies, an indentation deformity can often occur, particularly with the addition of radiation. This indentation and underlying scar tissue can tether a nipple's projection to one side. This may require rearrangement of the breast tissue, the grafting of fat from the abdomen and/or a procedure on the opposite side for symmetry.

Mastectomies now are done in an entirely different way than even 25 years ago with preservation of the nipples in most cases. This means that it is now, finally, a realistic goal to have mastectomies and reconstructions look and feel real, compared to 15 years ago. This is because much less of a reconstructed breast is missing. The nipple is often preserved, implants and flap techniques have improved, and we now have ways of moving fat and performing a lift at the time of the mastectomy.

Long-term Personal Considerations:

Surveillance Distant and Local. This is an important consideration for patients that is often NOT discussed. This is how you are going to live the rest of your life.

For distant disease spread, a PET scan or CT scans plus bone scan are the two ways to do this, if needed. Options to survey for local disease recurrence includes physical exam, mammography, ultrasound and MRI. Depending on the choice of treatment, this may be repeated every 6 months or yearly along with a visit to the surgical oncologist. Mammograms sometimes can be more uncomfortable after a lumpectomy and radiation. Again, this frequent imaging is done to look for a local recurrence, particularly in a lumpectomy site.

Should the patient choose or have to have a mastectomy, surveillance for local recurrence involves only a physical exam. No mammograms are ever done after a mastectomy. An ultrasound or MRI would be the choice to investigate anything found on exam.

Types of mastectomies and reconstructions possibly offered, basically :

Nipple-sparing mastectomy - this can be offered to smaller breasted women. The incision is across the fold beneath the breast and typically does not show.

Nipple-grafting mastectomy - this can be offered to women with larger or droopy, loose skinned, breasts. The nipple is preserved, thinned, and grafted on by a plastic surgeon, as is done in a breast reduction with incisions and scars like those of a reduction or of a lift.

Skin sparing mastectomy - this is done when the disease is too close to or involves the nipple or areola. This is usually done through a horizontal incision and the nipple is included with the specimen.

Implant based reconstructions - after the mastectomy, a plastic surgeon can replace the desired amount of missing breast tissue with either a smaller permanent implant (silicone gummy gel or saline) or a temporary expander that can be expanded in the office to the desired size. Often this involves grafting a human dermis leathery product over the implant or expander at the time of the mastectomy to control its position and increase the thickness of the tissue covering it. If an expander is placed, this will be replaced with a permanent implant 3 or more months later as a short outpatient surgery, often along with the grafting of fat over the implants that is aspirated from the abdomen and flanks. All implants will eventually fail and will likely need replacing via another short outpatient surgery.

Tissue-based reconstructions - this is when the missing tissue is replaced, either immediately or after tissue expansion, with tissue taken from the abdomen, buttocks, flanks or thighs. This is a longer operation with more risks and requires several days in the hospital. This avoids the need to replace the implant, if none are used.

So...PROs and CONs

Lumpectomy and radiation

+ Preserves nipple sensation the best.

+ Preserves the most of a breast

+ Avoids bigger and more surgery.

- Slightly higher recurrence rate.

- Requires every 6 to 12 months mammography and or ultrasound/MRI

- Can make mammography less comfortable.

- May cause indentation and or nipple position issues at one year, not seen initially.

+/- Mastectomy remains an option if not satisfied, comfortable, or there is a local recurrence of cancer.

Mastectomy

- Nipple and breast sensation loss or decrease.

+ Avoid the gauntlet of all future regular breast imaging/mammography.

+ Slightly lower local recurrence rate.

- Somewhat bigger surgery with more risk, although now 50% of mastectomies are done as outpatients nationwide.

+ Best chance for symmetry if done bilaterally, with or without reconstruction.

+ Reserves your body's total radiation dosing for when and if it's ever needed to treat end-stage disease and pain.