

Achieving Continence with a Neobladder

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After the surgeon has constructed a neobladder, it is the responsibility of the patient to stretch the neobladder in order to become continent. Most neobladder designs use the amount of intestine that is needed to build a reservoir that will hold 100-150 cc of urine. The newly constructed neobladder is a high pressure reservoir prone to leaking. By stretching the neobladder to hold 400-500 cc of urine, the neobladder will become a low pressure reservoir, making continence possible.

Most neobladder stretching guidelines instruct the patient to increase the interval between voiding from 2 hours to three hours and then to four hours over a period of a few weeks. This works fine for many patients, but there are many others that are unable to go two hours without considerable leakage. For these patients, there is little urine left to void when the two hours pass and stretching of the neobladder does not occur. This incontinence makes it impossible to successfully follow the usual guidelines for stretching the neobladder. If you are one of the patients experiencing these difficulties, then you need to establish your own procedures for stretching your neobladder.

Basically, your new procedures will be following the idea behind the original instructions but using smaller time intervals more in keeping with your circumstances. First, you need to determine the interval of time between voiding and when you usually begin leaking. Whether it is 2 minutes, 10 minutes, 30 minutes, 1 hour, or more, this is your start point. Now, you need to add time to this and consciously try to hold back any urine trying to leak out during this extra time. This may mean an increase of 5 minutes up to 30 or so minutes, depending on what is practical for you. Even if you dribble a little bit or feel discomfort in your lower abdomen, continue to consciously try to hold back urine flow for the new amount of time. Once you can hold the new amount of time without leakage or dribbling or discomfort, then add another interval increase of time and once again consciously try not to leak or dribble during your new time interval. Continue doing this gradual increase between voidings until you can go 3 to 4 hours or so between voiding and have a capacity of 400cc to 500cc of urine. If you needed to start out with really small interval of time increases, you may be able to go to a larger time increase as the neobladder stretches, and this will speed up the process. Although this will be time consuming and requires much concentration, it is necessary to stretch the neobladder in order for it to function properly.

You will probably find nighttime continence harder to achieve than daytime continence. As time passes, your neobladder, your pelvic muscles, and your brain become more in tune with one another, resulting in nighttime continence being much more likely. For some people once the neobladder is stretched to 400 to 500cc, then it is easy to let it stretch even more. An overstretched neobladder can become what is called a "floppy" bag that is unable to be completely emptied and would require catheterizing to void the retained urine. So, it is important for you to reach the maximum of 400 to 500cc but to not let it stretch much beyond that capacity. For most people, this means it will always be necessary to void at least once during the night.

At first, it can be very helpful to measure your urine output. This helps you know the capacity of your neobladder and can help you judge whether or not you are emptying completely. An easy way to do this is by using a collection container that has ounce and cc or ml markings and that fits between the toilet seat and toilet bowl. Sometimes these containers are referred to as pilgrim's hats because that is what they look like when turned upside down. They are inexpensive and should be available at local medical supply stores.

Also, remember that guidelines are not absolute laws. Therefore, use commonsense when following these instructions. For example, if you have been drinking twice as much as you normally do, then you will most likely have to void before your current time interval has past. Because the kidneys will be producing urine at a faster rate, the neobladder will fill more rapidly, meaning that you will still be accomplishing the stretching of the neobladder. In instances such as this, try to let the discomfort in your lower abdomen guide you as to when you should void.

References

University of Michigan's patient information sheet for neobladders:

<http://www.med.umich.edu/nursing/5a/urology/nebldr3.htm>

"Managing patients after an ileal orthotopic bladder substitution"

<http://www.blackwell-synergy.com/doi/pdf/10.1111/j.1464-410X.2004.04599.x>

For those wanting to better understand the science that is the basis for a continent urinary diversion, the principle of Laplace's Law ($\text{Pressure} = \text{Tension}/\text{radius}$) should be studied.