Often when discussing the rationale for complete decongestive therapy (CDT), clinicians will explain that CDT can decrease the incidence of cellulitis. There is evidence that the frequency of infection can be reduced by decreasing the amount of stagnant lymph fluid in the affected limb. The following case history exemplifies this principle.

The first time I met F.H., she had suffered no less than 60 bouts cellulitis spanning a 20-year time frame. She explained that in 1974, at the age of 51, she had undergone a right modified radical mastectomy for treatment of breast cancer in her right breast. This included a level II dissection of her right axillary lymph nodes. Within a week of her surgery, she suffered a wound infection over her chest and was treated with IV antibiotics while still in the hospital. At that time, she first noted swelling in her dominant right upper extremity.

Within two months of her surgery, she experienced her first bout of cellulitis in her right upper extremity and was treated with oral antibiotics. She then experienced at least one bout of cellulitis in her right upper extremity every 12 to 16 weeks following her initial surgery. She was most often treated with a course of oral antibiotics lasting 10 days to 2 weeks, but on several occasions over the 20-year span she became septic and required hospitalization in the intensive care unit on seven occasions. She required ventilator support on five of those occasions.

I saw her more than 20 years after she first experienced recurrent bouts with cellulitis. At that time, her right arm measured 7 centimeters larger at its greatest circumference and 4 cm larger at its least circumference, compared to her unaffected left arm. She complained of exhaustion, chronic malaise, and discomfort from the repeated infections. In addition, the patient was very concerned by the fact that she was unable to wear most standard clothing and she missed being able to wear some of her “pretty suits and shirts”.

On examination, this vivacious 74 year old had a visibly enlarged right arm compared to her left arm. She had areas of fibrosis in the medial forearm area and accumulation of fluid and subcutaneous fatty transformation around her right elbow. There were no papilloma, no verrucal hyperplasia, and no evidence of lymphangiitis or drainage. She had some pitting over the dorsum of her right hand, but her fingers were not swollen. There was no lymphadenopathy (enlargement/swelling of lymph nodes) appreciated in her right axilla or in the right supraclavicular fossa. She had a well-healed scar in her right axilla and over the right chest wall with an adherent scar over her bony rib area. The patient reported that she had an area of numbness and tingling that extended from her right axilla to the medial portion of her right upper arm as far as her elbow. She had normal grip strength and manual muscle testing was intact. Deep tendon reflexes were hypoactive on the right arm, although this may have been due to the size of her arm compared to her opposite side.

The patient was treated in our comprehensive lymphedema management program, and at the conclusion of the program in 4 weeks she had reduced most measured areas to less than a 2-centimeter difference between her arms at each measured point. She then was fitted with a custom made Jobst sleeve and glove with open fingertips. I followed the patient over the next 10 years with visits at 9-month intervals. At these visits she was measured for two new compression garments, which she rotated diligently. She was extremely adherent with her home maintenance program, practicing meticulous skin care. In the subsequent 10 years she had no episodes of cellulitis, except for one that developed after she accidentally bit a hangnail from her right thumb. She called me the day of the event, knowing that she had precipitated an episode of cellulitis. We were able to bring this episode under control with oral antibiotics. She did not suffer another bout of cellulitis in 10 years, nor did she need to take another antibiotic for cellulitis or prophylaxis of cellulitis. Additionally, the patient’s right arm continued to decrease in size over time until her dominant right arm measured no more than one centimeter larger than her non-dominant left arm at every measurement point.

There is literature describing the observation that the frequency and severity of cellulitis are related to the amount of lymphedema in the affected limb. In this instance, dramatic reduction in the size of the limb was associated with a dramatic reduction in the frequency of cellulitis. Not all cases are the same; however, F.H.’s case illustrates the importance of treating lymphedema as an approach to reducing recurrent cellulitis. Her incidents of recurrent cellulitis were reduced with successful treatment of the lymphedema.

Paula.Stewart@healthsouth.com
HealthSouth Lakeshore Rehabilitation Hospital, Birmingham, AL