

## USE OF HAND COMPRESSION AND COMPRESSION SLEEVES IN LYMPHEDEMA MANAGEMENT AND PREVENTION

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Controversy persists regarding the benefits of compression garments in preventing lymphedema. A key stumbling block is the possibility of triggering hand lymphedema when wearing a sleeve without a glove or gauntlet. Compression applied to the arm may reduce lymph flow from the hand. Even a normal lymphatic system works harder to drain lymph from the hand than other parts of the arm. This fact explains why hand lymphedema is often the most challenging to treat and why lymphedema specialists take great pains to prevent it. Concern that compression sleeves may inadvertently trigger hand lymphedema underlies the recommendation to always wear a compression gauntlet or glove with a sleeve.

Most women at risk for lymphedema who have not noted increased arm volume, symptoms, or other indicators of early lymphedema wear their sleeves during activities that increase lymph production. Examples include airplane travel, vigorous aerobic or resistive exercise, and repetitive activities performed in an intense fashion. It is important that women using preventative compression sleeves combine their sleeve with either a gauntlet or glove during such activities. Particular attention should be paid to constriction at the shoulder band, elbow, and wrist crease. Sometimes overlap of a gauntlet and sleeve at the wrist can cause excessive pressure.

For women with established lymphedema the decision to use a gauntlet or glove is based on slightly different considerations. Lymphedema of the upper limb may be distributed in a surprisingly patchy manner. For example, lymphedema may be restricted to the underside of the upper arm or the back of the hand. It goes unsaid that lymphedema is a very individual phenomenon. Many women with lymphedema never note hand involvement despite use of an arm compression sleeve for



many years. However, even these women should remain watchful for hand swelling since lymphedema is a dynamic process with the potential to change over time. A quick check for hand edema after engaging in the activities listed above is always warranted. Differences in skin texture or the visibility of bones, veins and tendons may indicate lymphedema. These changes suggest a need to consider some form of hand compression.

Of particular concern are women with lymphedema that plan to begin an exercise program or to significantly increase their activity and do not use hand compression. For these individuals use of hand compression during exertion is crucial until a stable level has been established. At that point a woman may carefully experiment with using a sleeve alone. However, it is always prudent and appropriate to use hand compression during vigorous arm activity. As previously noted, hand lymphedema is more difficult to control than arm lymphedema. The hand's irregular shape, its critical role in daily activities and the difficulty inherent in precisely fitting a gauntlet/glove all contribute to this problem. It is vital that early signs of hand lymphedema be taken seriously and that appropriate modifications are made to a patient's lymphedema maintenance program.

In summary, a gauntlet or glove should be used in conjunction with compression sleeves when used for lymphedema prevention. Women with established lymphedema who have not required hand compression should consider adding a glove or gauntlet in situations that may increase lymph production in their arms. Many patients with lymphedema spend their entire lives well-controlled with use of a sleeve alone. A good comparison to the decision to wear a gauntlet/glove with a sleeve is that it is like buying insurance. The risk of having hand lymphedema is present in all women with arm lymphedema and those at risk. Adding a gauntlet buys some protection against this event and like all insured risk, we do not know who will be helped by the insurance and who might not even need it. Working with physicians and therapists skilled in lymphedema management will ensure that each woman develops a safe and effective compression plan tailored to her unique needs.

