Compression Stockings Help Aching Legs

Journal of Occupational and Environmental Medicine (1897;31(9):889-894)

New research shows that gradient compression stockings end gradient compression socks can make a real difference in your leg health. Read how gradient support stockings and graduated support socks can help increase venous circulation and reduce Jag ache and eweI1ing.

NEW YORK (Reuters) -Compression stockings outperform special floor mats when it comes to reducing the ache and swelling of workers' legs where their jobs require prolonged standing, say Dutch researchers.

"Compression stockings appeared to be superior to rubber mats: conclude a team from the University Academic Hospital in Amsterdam, the Netherlands.
Their study appears in this month's *Journal o f Occupational and Environmental Medicine.*

A condition called chronic venous insufficiency (CVl) includes leg swelling and skin changes that occur when the pressure of blood in the leg veins is raised due to factors such as long periods of standing and weight gain. Leg veins depend on muscle movements to help push blood against gravity. Small valves in the veins that also help blood flow are weakened by increased venous pressure and this can lead to the appearance of varicose veins.

These venous conditions can have serious implications: a recent German study found discomfort such as tired, aching legs due to venous disorders leads 2% of the workforce to quit or change their jobs.

Two therapies have evolved to help increase venous circulation and reduce leg ache and swelling. Compression stockings are e1astic support stockings which hug the legs and are thought to assist venous return -the flow of blood through veins back to the heart. Rubber mats, often designed with irregular surfaces, may help stimulate leg muscles into more varied activity than might occur on hard, smooth flooring.

The Dutch researchers studied a group of 114 meat factory workers over a three-month period. All of the participants suffered from some form of venous disorder in their legs. One group of workers was asked to wear custom-designed compression stockings, while another group had rubber matting installed on factory floors. A third 'control' group was simply left to work in an unaltered environment.

Medical tests, including measurements of leg volume (to determine swelling), and questionnaires regarding leg pain were given to each worker involved in the study.

The results? In most cases, compression stockings managed "to prevent the legs from swelling" during a normal workday, the researchers conclude. A decrease in leg volume was observed in 43% of the workers who wore them. By comparison, only 14% of those laborers standing on rubber mats displayed a decrease in leg volume. 1n fact, 50% of these workers displayed increased swelling in their legs after a day spent standing on the mats, the investigators conclude.

And at the end of the three-month study period, just "'27% of the workers (using stockings) reported…complaints of the legs, compared with 70% before." Moreover, no significant change in complaints was recorded in those employees working on the rubber mats, the researchers report.

They believe the ability of compression stockings to reduce leg pain and swelling might be improved further by proper fitting. Thirteen percent of workers complained of ill-fitting stockings. "If they fit well, elasticompression stockings were appreciated by most workers," say the authors of the study.