



UNLOCK. POTENTIAL.

Improving Employee
Health & Workplace
Productivity with
an Insole Program

MEGA
COMFORT[™]
WORK-LIFE WELLNESS SOLUTIONS



SCAN OR
CLICK BELOW
TO LEARN MORE
https://bit.ly/MC_learn_more

/// ANTI-FATIGUE MATTING IN YOUR BOOTS™

CONTENTS

- 3** Overview
- 4** The Risks of Ignoring Foot Support
- 5** What's in the Sole?
- 6** Insoles vs. Matting
- 8** Choosing the Correct Insole for each Individual
- 10** How to Implement an Insole Program
- 11** A Step Ahead

DISCLAIMER

Information provided in this guide is for general informational purposes only, and does not constitute legal advice. This information should never be a substitute for conferring directly with professional legal counsel, or health and safety professionals with respect to your particular legal and safety needs. An employer should not rely upon or take any action with respect to any specific legal, regulatory or safety matters based on information contained in this guide. MEGAComfort disclaims any and all liability with respect to any action you do or do not take in reliance on any material in this guide.



ABOUT MEGAComfort™

MEGAComfort Inc. a SureWerx® brand is a leading international company which offers a complete range of patented ergonomic, dual-layer 100% memory foam anti-fatigue insoles and orthotics. MEGAComfort products have been clinically proven to reduce muscle fatigue and pain, while simultaneously increasing worker comfort. For over 20 years, MEGAComfort has advocated for cost effective Personal Anti-Fatigue Mat Insoles to replace costly standard floor matting.

OVERVIEW

Workers who walk or stand for long periods of time during their workday, without proper foot support and shock absorption, are susceptible to pain and harmful musculo-skeletal disorders (MSDs) that can have lasting effects on the body. Just as steel-toe footwear is often required as personal protective equipment (PPE) for workers, insoles are essential for preventing pain and fatigue.

If workers spend hours on their feet, there is an increased risk for inflammation and excess muscle fatigue that could be avoided with proper foot support and insole comfort. Aches and pains in the body associated with foot issues can also impact workers knees and back. Understandably, this can result in reduced employee work productivity or absenteeism.

There is a significant advantage to providing insoles vs. traditional anti-fatigue matting for a work environment. The benefits of insoles, including personalized fit and the ability for the worker to be mobile far exceed the limitations of anti-fatigue matting.

A key component to consider, is what materials are used in the manufacturing of the insole. Some materials only provide support, while others have a limited amount of

basic foam to add comfort. Insoles made with dual layer memory foam provide 100 percent surface contact with the body, 100 percent of the time.

Rather than an afterthought, the right insoles should be considered as a necessary complement to any corporate health and wellness program. The type of insoles supported by research are those made of polyurethane (memory foam) with a particular durometer (hardness) to address the variety of work demands and employee needs. This increases the confidence level for safety leaders in making the decision to implement the most effective insole program. In addition, if orthotic insoles are necessary to correct an existing issue such as pronation, it is important that the orthotic insole supports, corrects and places the foot back in its natural and neutral position; the optimal position for healthy feet.

Implementing a company insole program is an important decision and all aspects should be considered, including employee involvement, to ensure the program meets the needs of all workers, and has a positive impact and acceptance rate.

THE RISKS OF IGNORING FOOT SUPPORT

Employees who work on their feet everyday are at higher risk of MSDs, with back disorders accounting for 49 percent of all work-related injuries.

Physical work requirements within manufacturing and similar industries include prolonged standing, static postures, over-exertion and repetitive motion. These actions can lead to aches, pain and injuries on the job. Standing or walking for an extended period of time within the workplace affects the knee, hip and back over the long term.

According to the Bureau of Labor Statistics, employment of workers over 65 increased by 101 percent between 1997 and 2007¹. Due to the aging workforce and increased healthcare costs, insurance premiums and workers' compensation claims are skyrocketing. Arthritis and other degenerative diseases are on the rise, and the cumulative effects of micro trauma and repetitive stress can build up. In fact, 54 million U.S. adults have arthritis, and that number is expected to reach more than 78 million by 2040, according to a recent CDC study². With elderly workers at an increased risk of arthritis³, it's important to prevent the progression of arthritis with additional foot comfort and support. If it's left untreated, the condition can quickly force workers to leave their jobs.

Balance is also important as workers age. According to the National Institute of Health, balance disorders are one reason that older people fall, which can lead to serious injuries. Good balance is key for helping people safely move and remain still, and stay independent as they age. Organizations should look for ways to support employees' balance to help prevent the falls that nearly one-third of adults aged 65 years and older experience each year.⁴

While back disorders make up nearly half of all work-related injuries, a large portion can be avoided. Feet are the foundation of the body, carrying the burden of weight while supporting the knees, back and hips. If feet are not properly cared for, this can result in pain, fatigue and damage to the body. If left untreated, this pain can escalate over time and cause issues such as shin splints, plantar fasciitis, stress fractures and more MSDs.



Ignoring the issue of foot care can also escalate the impact of shock waves. When feet experience poor shock absorption, it can jolt knees, the back and hips with each step. The result is joint and muscle pain throughout the body. Hard surfaces, which are common in many workplaces both in and outdoors, are especially unforgiving when there is a lack of foot support.

When employees are suffering from pain and fatigue, they are less energetic and productive, and morale can take a hit. Employee pain often leads to lower productivity and absenteeism. Thankfully, solutions exist today that can reduce the negative impact of the environment on employees' feet.

A clinical study conducted by Dr. Patrick Carley of American International College measured the lower leg muscle activity of workers at a U.S. toy manufacturer. The workers stood for most of their shifts on concrete flooring and complained of foot, knee, hip and lower back pain. In Dr. Carley's study an electromyography (EMG) was used to compare leg muscle responses with and without memory foam insoles, and found that lower extremity muscle activity was reduced by 9.6 percent using insoles⁵. Limiting muscle activity during each work shift can have a positive cumulative effect over the course of a worker's career⁶.

1 www.propertycasualty360.com/2015/06/24/the-aging-workforce-solutions-for-todays-greatest?t=workers-compensation&slreturn=1491575051&page=1

2 www.cdc.gov/features/arthritis-on-rise/

3 www.ncbi.nlm.nih.gov/pmc/articles/PMC3154222/

4 www.nihseniorhealth.gov/balanceproblems/aboutbalanceproblems/01.html

5 & 6 Ergonomics International Journal - Insole Program in the Manufacturing Setting www.medwinpublishers.com/EOIJ/EOIJ16000121.pdf

WHAT'S IN THE SOLE?

Different types of insoles are manufactured with different materials, making some better or worse for shock absorption, structure or support. These materials include:

EVA

Ethylene Vinyl Acetate is a dense type of foam which is used for a wide variety of applications. It's often found in athletic shoe footbeds and can very quickly lose its shape (flatten out), causing a deficiency in providing shock absorption and support.

OPEN-CELLED FOAM WITH RECYCLED RUBBER

This material combination is made of breathable foam to help regulate temperature and is often found in popular shoe brand footbeds. It is eco-friendly and airy, but offers little to no cushioning, arch support or shock absorption.

NEOPRENE

This material is often found in scuba suits and is made up of synthetic rubbers. It can help absorb some shock and vibration, but doesn't provide adequate cushioning and comfort.

GEL

This popular type of insole material does not provide any arch support and is very easy to overheat.

GLYCERIN

Like a water bed, glycerin foot beds offer massage-like support but can quickly drain or even leak, requiring replacement.

POLYURETHANE

There are two types of polyurethane foam used in insoles; high resilient polyurethane has a fast recovery time which can allow for the negative absorbed forces to be sent right back to the body. Low resilient polyurethane (**memory foam**) on the other hand has a slow recovery time, is very durable and is the best material for cushioning, comfort and shock absorption.

MEMORY FOAM DENSITY COMPARISON			
STRUCTURE	DURABILITY	FOAM RESPONSE	PRESSURE-POINT RELIEF
Low Density	X	Faster	X
High Density	✓	Slower	✓

STRUCTURE COMPARISON				
	FIRM	SOFT	SPRINGIER	COMFORT
Open Celled	X	✓	✓	✓
Closed Celled	✓	X	X	X

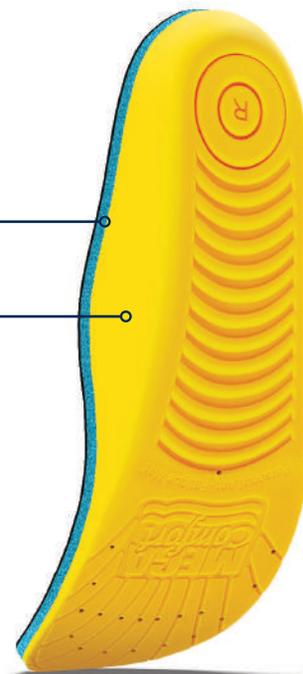
MEGACOMFORT, a provider of ergonomic anti-fatigue insoles that are Podiatrist-designed, uses a patented combination of high density dual layer 100 percent memory foam that provides a unique 1-1.5 second rebound with each step, and as a result improves both support and comfort.

Soft Open-Celled Memory Foam reduces harmful shear force and provides MAXIMUM COMFORT

Ultra High-Density Memory Foam Ergonomically molded for MAXIMUM SHOCK ABSORPTION

Another study performed by Dr. Carley compared the top five leading industrial insoles on the market based on personal preference, and MEGACOMFORT insoles were selected as the best choice for standing job tasks. These insoles ranked highest in levels of firmness, shock absorption, effect on balance, arch support, breathability and comfort⁷.

Ultimately, the type of footbed material in the insoles will impact worker productivity and overall comfort, making the choice of which type of insole to provide employees an important one.



⁷ www.megacomfort.com/comparisonstudy



ANTI-FATIGUE INSOLES vs. ANTI-FATIGUE MATTING

Organizations usually consider two options to reduce employee pain and fatigue: insoles and floor matting. Personal insoles offer numerous advantages and flexibility to both employees and organizations, making them an attractive solution. These benefits include:

ABILITY TO WEAR ANYWHERE

Insoles can be implemented instantly without training and go wherever the worker goes. This makes them an ideal solution for both stationary and mobile workers who work both indoors and outdoors. Additionally, when a worker walks away from their workstation, the comfort stays with them. This option also protects employees who walk to and from work, ensuring they arrive and leave without strained or sore feet.

PERSONALIZED COMFORT

Employees can select the type of insole that best matches their needs, allowing for personalized comfort for workers based on their foot size and arch type. Insoles have aeration holes to help regulate body temperature and are anti-fungal, anti-bacterial and anti-perspiration, which keep the feet smelling fresh.

DIRECT CONTACT WITH THE BODY

As insoles are placed inside the footwear, they have 100 percent surface contact with the feet and body, 100 percent of the time, providing a reliable ergonomic solution. Therefore, they're far more effective than the standard anti-fatigue floor mats at reducing muscle

strain, improving balance reactions and increasing blood circulation. This helps to prevent pain and injuries.

REDUCED RISK

Insoles reduce the risks of slips, trips and falls, making the workplace safer and lowering expenses related to workers' compensation claims. Facilities that utilize matting, must make sure to keep the surfaces clean and well-maintained so that they remain intact and the edges don't curl up and create tripping hazards.

LESS MAINTENANCE

Insoles are machine washable, making them extremely easy to keep clean compared to mats that build up dirt over time.

EASY TO IMPLEMENT

Insole programs are simple to implement, particularly if you have conducted a wear test trial with a key group of employees first.

COST EFFECTIVE

Insoles are more affordable than floor matting. Quality insoles can also stand the test of time, resulting in infrequent replacement.

Another option on the market are outsoles (anti-fatigue overshoes). These products use hook and loop straps to attach to footwear. If the straps are too short they may become loose which could cause a serious tripping hazard. As well, outsoles tend to be clunky and add weight to an already heavy work boot which makes walking awkward. Outsoles are more costly than insoles, and they are not in direct contact with your foot and therefore cannot provide cushioning and arch support.



EXAMPLE OF COST SAVINGS IN A FACTORY OF 250 WORKERS

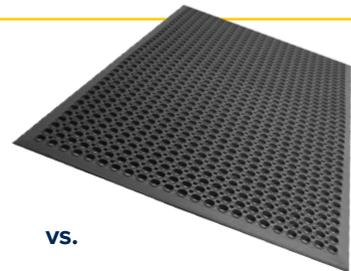
Imagine a facility that employs 250 workers and is considering the addition of insoles or floor matting. It would cost approximately \$25 to provide a pair of personal anti-fatigue insoles for one employee. Multiplied by 250, the total cost to protect every worker is roughly \$6,250 per year.

In comparison, a brand-name anti-fatigue floor mat for a 3x5 foot workstation would cost roughly \$180. In total, for all employees to have matting in their work area, the business would have to invest more than \$45,000.

The cost savings with insoles is \$38,750, and this does not include the time and cost associated with maintaining floor mats, which can become soiled, ripped and warped.

If you decided to provide the workers two insoles per year, you would still be saving over \$32,500 per year.

MATTING
COST PER WORKER
\$180



vs.



INSOLES
COST PER WORKER
\$25

(\$180 - \$25) x 250 WORKERS =

\$38,750
**Cost Savings
with Insoles**

CHOOSING THE CORRECT INSOLE FOR EACH INDIVIDUAL

To select the right insole for each employee, it's essential to determine what is needed most shock absorption, support or addressing a pre-existing foot condition.

Finding an insole provider that offers numerous customizable and comfortable options allows companies and employees to explore a range of solutions for both plant/warehouse and office workers.

Insoles that provide shock absorption can be used to prevent health and pain issues, while others provide more support to align the foot into the proper neutral position.

For over 15 years, MEGAComfort's insoles have been clinically tested and proven to reduce pain and fatigue while increasing balance and comfort for any type of foot, in any type of shoe or boot, within any type of environment.

In another study conducted by Dr. Carley, subjects' balance reactions were challenged in eight different directions at the maximum of 100 percent of the individual's limits of standing stability. Different ergonomic mats and insoles were compared, and the study concluded that insoles are superior to matting as they provide cushioning placed closest to the foot surface. It also found that softer insoles with a slight contour provided the best conditions for balance for a variety of work standing tasks vs. firmer insoles⁸. The results demonstrated that MEGAComfort insoles would be the best choice for standing job tasks requiring specific key strokes, accuracy of placing parts, task accuracy, productivity and fine motor activities involving the hands.

Insoles that are designed to properly support and comfort feet are not the same as insoles that form to and are molded to the exact shape of one's foot.

According to a study done by the Journal of Foot and Ankle Research⁹, heat-molding orthotic devices do not have a measurable effect on the biomechanical variables compared to the non-molded condition. Heat-molding insoles lack in providing corrective support since they're not firm enough to provide support. Most importantly, these types of insoles reinforce the incorrect arch that's already causing foot pain and don't offer pronation control which would correctively put the foot in a neutral position, and realign it with other body parts.

The foot can have a low, medium or high arch, which will impact the level of support that is needed. For individuals with low arched feet, the lack of proper support can lead to plantar fasciitis, heel spurs, knee discomfort, shin splints or bunions. This makes rigid support a preference for these individuals.

Flexible support is typically preferred for those with medium arched feet. High arched feet can result in poor shock absorption and repetitive stress problems, making cushioned support a great solution.

Different activities, types of footwear and other factors like age, pregnancy and weight gain or loss can impact the level of comfort and support required. Therefore, it's important to provide anti-fatigue solutions with multiple customization options. These allow users to adjust support easily and quickly when these factors impact comfort, support and balance.



Medium Arch



High Arch



Low Arch

⁸ Journal of Bones & Muscle Study - www.norcaloa.com/BOMS/article-in-press/BOMS-101011

⁹ www.jfootankleres.biomedcentral.com/articles/10.1186/1757-1146-4-18



MEGAComfort's products are ergonomically designed by a Podiatrist, using patented 100% dual layer memory foam technology. Insole types include:

PERSONAL ANTI-FATIGUE MAT™ (PAM)

These insoles provide maximum shock absorption and comfort for industrial footwear. The memory foam compresses for safe clearance in steel toe footwear. Other features include a deep heel cup and soft contoured arch.

PERSONAL ANTI-FATIGUE MAT™ ESD

The ESD threads in these insoles, which are recommended for anti-static footwear, provide proven electro-static dissipation.

MEGASOLE™

These insoles have a streamlined design to provide a better fit in most casual and street footwear or safety shoes, and feature MEGAGel™ Visco Technology for vibration reduction.

MULTI-THOTIC™

This 3-in-1 orthotic system provides support and balance without compromising comfort. These insoles include multiple re-attachable medical grade arch supports so that employees can vary the degree of arch support. MULTI-Thotics are a cost-effective initial replacement to custom-made orthotics.

PAM PUNCTURE RESISTANT™

These insoles feature an encapsulated flexible steel plate which will not separate from the memory foam. These puncture resistant insoles protect workers from sharp objects such as shards of glass, metal and nails.



HOW TO IMPLEMENT AN INSOLE PROGRAM

Organizations looking to implement an insole program should consider the following:

- 1 | SET UP A WEAR TEST TRIAL WITH KEY PERSONNEL**

Consider replacing existing anti-fatigue matting with an insole wear test trial program. This program can help establish feedback from employees who are trialling the insoles for a few weeks. This will also increase your acceptance rate of the new program and enable employees to try specific insoles that relate to their needs. **Using wear test trials, MEGAComfort has on average a 95 percent acceptance rate.**
- 2 | INCLUDE INSOLES IN A HEALTH AND WELLNESS PROGRAM**

Include insoles as part of an employee's health benefits to show that your organization is proactive and cares about its employee wellness and comfort, boosting both employee morale and company image.
- 3 | CONSIDER MULTIPLE BUDGETS FOR FUNDING**

Various budgets can be used to cover insoles, such as a company's PPE, safety, floor matting, uniforms, wellness or footwear programs already in place.
- 4 | INCLUDE INSOLES AS PART OF A PPE AND FOOTWEAR PROGRAM**

Just as gloves might be part of the PPE that you wear to protect your hands at work, so should protective footwear and insoles protect your feet. Set up a lost or replacement program and make employees aware of it. Replacing insoles on a regular basis ensures employees always receive the same amount of comfort and support and may extend the life of protective footwear.
- 5 | GET INSOLES FOR EVERYONE**

The environment and employee tasks can vary across an organization. For example, some workers may be stationary for most their shift while others are mobile. Some may only work inside, while others need to complete outdoor tasks. Therefore , it's important to get insoles that meet the needs of all workers.



A STEP AHEAD

Considering the contemporary workforce, organizations should want to stay a step ahead in retaining and attracting employees. A perfect way to accomplish this goal is to look for ways to improve productivity, employee health, job satisfaction, and safety all while having a significant impact on the bottom line. Many workers experience uncomfortable shock waves that can cause lasting pain and negatively impact productivity. Personal insoles provide a simple way to alleviate the pain associated with shock waves and improper support, and can help control work related risk and prevent costly and long-term health issues.

Insoles offer numerous advantages compared to anti-fatigue mats, including easier implementation, reduced costs and the ability to protect mobile workers. Organizations should select insoles with dual layer memory foam because they provide 100 percent surface contact with the body, 100 percent of the time. These insoles provide both support and comfort for employees.

There are numerous types of insoles available, and different workers require different insoles to address their desired levels of comfort, support and varying job functions. For example, if orthotic insoles are needed, they must support, correct and place the foot back in its natural and neutral position.

Several best practices exist that companies can follow when setting up a corporate insole program, including wear test trials, subsidizing insoles from multiple budgets and making insoles part of a PPE program. With the right research and knowledge on hand, organizations can choose the most appropriate solutions for their workers and better manage their programs to ensure they realize the many benefits of insoles.



MEGA **COMFORT**™

WORK-LIFE WELLNESS SOLUTIONS

A / Une Marque / Una Marca



Brand

**UNITED STATES
CUSTOMER SERVICE CENTRE**
13136 NE Airport Way
Portland OR 97230
(888) 269-4526 (7 am to 4 pm)
orders@footwearspecialties.com

**WESTERN CANADA
CUSTOMER SERVICE CENTRE**
49 Schooner Street
Coquitlam, BC V3K 0B3
(604) 523-8665 (8 am to 5 pm)
surewerxod@surewerx.com

**EASTERN CANADA
CUSTOMER SERVICE CENTRE**
979 Gana Court
Mississauga, Ontario L5S 1N9
(905) 565-8661 (8 am to 5 pm)
surewerxod@surewerx.com