

# MetriX<sup>3</sup>

**Sports Insoles**

## Le Groupe Trimétrie

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# MetriX<sup>3</sup>

**Performance**  
*molded into the shape of your feet.*



Running



Golf



Skating



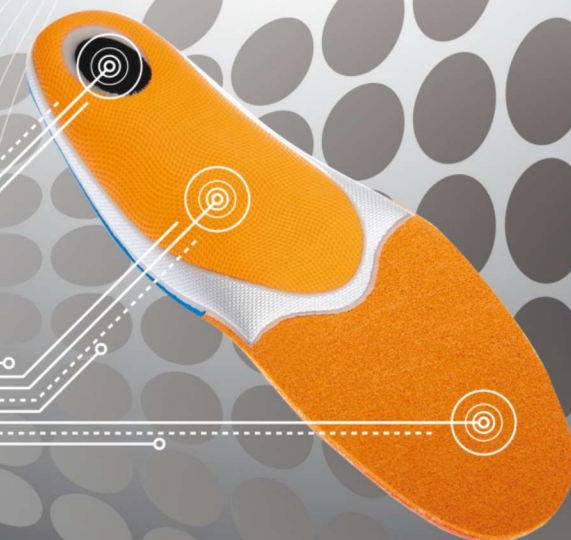
Hiking



Soccer and Football



Racquet sports



*Treat yourself to **comfort**,  
**well-being** and **performance**.*

**MetriX<sup>3</sup> Sports Insoles.**

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# The company

Groupe Trimétrie offers **SPECIALTY PODIATRY SERVICES** in Canada and the United States. Over the years, we have surrounded ourselves with foot health **PROFESSIONALS**, materials **SCIENTISTS**, product **DESIGNERS** and biomechanics **EXPERTS**.

Our **MULTIDISCIPLINARY EXPERTISE** has enabled us to develop the **MetriX<sup>3</sup>** Sports Insoles, specifically designed to meet the needs and demands of both professional and amateur athletes.



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# Innovative products

**MetriX<sup>3</sup>** (proper noun): Sports insoles that are molded into the shape of the athlete's feet and footwear after a heating process.

Different **SPORTS** mean different environments and movement types. That is why our **SPECIALISTS** have taken the time to analyze **SEVERAL SPORTS** in order to isolate the specific elements that need to be taken into account when making sports insoles that will suit them best.

**MetriX<sup>3</sup>** offers optimal **CONTROL** and **PROTECTION** according to the intensity, frequency and impact factor of the athlete's activity for the ultimate **PERFORMANCE**.

Our **MetriX<sup>3</sup>** Sports Insoles are the **PERFECT SOLUTION** for professional and amateur athletes who do not need medical compensation for their feet.

**MetriX<sup>3</sup>**  
*Performance,  
molded into the shape of your feet.*

# Sports Insoles

## Running



## Stress Analysis

### Movement

Running is a high-impact sport. More often than not, the knees and the spine unevenly absorb the shocks. The impact wave caused by each stride can amount to as much as 4 times the body weight!

Runners with inadequate footwear expose themselves to substantial risks: reduced performance, recurring back and knee aches, and injuries to the feet and ankles.

### Environment

The ideal environment for running would be, of course, a running track designed with rubber to absorb the shocks. Most joggers, however, practice their sports on the hard surfaces of streets and sidewalks. As the feet hit the ground, the impact produced as a result isn't absorbed by the surface in any way. The impact is thus entirely transferred back to the feet, knees and spine. Shoes and insoles that are adapted to the runner will provide adequate impact absorption and protection from trauma to the feet and upper body joints.

**Performance, molded into the shape of your feet**



**Our Solution**

## MetriX<sup>3</sup>

## Running Insoles



- Covered with resistant, washable and comfortable material
- Offers optimal energy return
- Heel-stabilizer
- Offers maximum protection to the much solicited ball of the foot
- Increases the resistance of the transverse and longitudinal arches

# Sports Insoles

## Golf



## Stress Analysis



## Our Solution

### Movement

When playing golf, the position of the feet on the ground is of great importance. Foot muscles and tendons are greatly solicited during the golfer's swing, on top of having to adapt to support the entire body weight for hours on the golf course. On average, a golfer walks 5 miles per 18-hole round. Moreover, the intervertebral discs in the player's back are subjected to 600 lbs of weight every time the golfer bends over to pick up or place a ball. After so many hours spent on the course, walking and hitting the ball, foot trauma is to be expected.

### Environment

A golf course is seldom responsible for muscular injuries or muscle pain. Walking on an evenly grassed terrain allows muscles and tendons to work safely. However, since golf is a long-lasting activity, it can cause muscle pain and fatigue, especially at the end of the round.

**Performance, molded into the shape of your feet**

# MetriX<sup>3</sup>

## Golf Insoles



- Covered with a resistant, washable, comfortable material
- Limits the risk of muscle fatigue on the feet
- Limits foot twisting during swings
- Low-density insole



# Sports Insoles

## Skating



## Stress Analysis



## Our Solution

### Movement

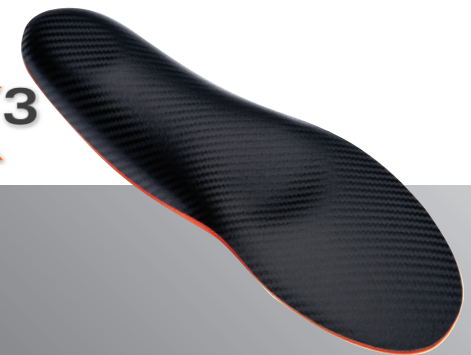
Although skating is slightly different for hockey players or figure skaters, both involve similar demands from the feet, underlying muscles and tendons. In hockey, numerous sudden starts and stops cause elevated tensions to the feet, ankles and knees. Although lower muscles are strongly solicited in figure skating, they will be subjected less violent shocks except in figure skating jumps.

### Environment

As far as ice-skating goes, an evenly iced surface helps avoid injuries caused by cracks in the ice. Nevertheless, you should be careful on outside rinks since there can be hidden imperfections or other small obstacles.

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## Skating Insoles



- Covered with a resistant, washable, comfortable material
- Offers comfort and grip
- Maximum rigidity for wedging the foot into the skate's rigid shell
- Limits the risk of muscle fatigue on the feet

**Performance, molded into the shape of your feet**

# Sports Insoles

## City Walking and Hiking



## Stress Analysis



Our  
Solution

### Movement

Nowadays, more and more people practice walking as a sports activity. Because it maintains flexibility without requiring any violent efforts, it is a great antidote to aches caused by lack of activity. While running, lower limbs suffer impacts equivalent to 2 to 4 times the body weight; when walking, the ratio is only about 1.5 times the body weight. However, it is estimated that a pressure of 995 psi is transferred to the sole of the feet with each and every step an adult takes.

### Environment

Walkers usually walk on one of these two different surfaces: hard ones like asphalt and concrete on city streets and sidewalks, or rocks and soil on evenly steeped surfaces outside the city. On hard surfaces, although the impact wave is predictable, the shocks will be constant whereas hiking on rough surfaces may present many obstacles and impact points that can vary greatly depending if you are walking uphill or downhill. This is why these two activities require different footwear.

**Performance, molded into the shape of your feet**

# MetriX<sup>3</sup>



## City Walking and Hiking Insoles

- Covered with a resistant, washable, comfortable material
- Offers comfort and grip
- Limits the risk of muscle fatigue on the feet
- Limits impacts and vibrations
- Stabilizes the foot and ankle on uneven surfaces

# Sports Insoles

## Soccer and Football



## Stress Analysis



## Our Solution

### Movement

Both sports are quite demanding for the feet since they require strength and precision. Football and soccer players must run, jump, change directions and kick. They must be flexible and able to adapt to the game's various phases. Their feet must endure a great deal of repeated stress, which can cause injuries and pain syndromes mainly to the back of the foot and the ankle.

### Environment

A sports shoe must be adapted to the player's feet and the terrain on which the sport is played. When played outdoors, football and soccer generally use a natural surface which absorbs the impacts. In the case of hard indoor surfaces, the impact and the tension that rapid braking causes highly increases the risk of injuries and excessive pain while it subjects knee, hip and spine joints to a hard test.

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## Soccer and Football Insoles



- Covered with a resistant, washable, comfortable material
- Prevents slipping of the foot during the numerous stops-and-starts
- Limits the risk of muscle fatigue on the feet
- Offers optimal energy return during strides
- Stabilizes the heel during mediolateral foot movements

**Performance, molded into the shape of your feet**



## Sports Insoles

### Tennis, Squash, Badminton...



## Stress Analysis



## Our Solution

### Movement

These sports entail slow running sequences that alternate with frequent accelerations in multiple directions. Hitting the ball requires a stable position as well as a pivoting movement. For example, an amateur tennis player will do up to 250 stops, starts and acceleration swivels in a single set. The variety of movements is infinite, so muscles and tendons will be solicited accordingly.

### Environment

A distinction should be made depending on the kind of ground where the sport is played. Clay courts make for a relatively slow play and reduce stress on joints and tendons because footholds are taken more progressively and sudden stops are less frequent. Courts that are made of concrete asphalt or other hard surfaces cause much more trauma because footholds are quickly blocked and the energy is brutally transferred to tendons and joints.

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## Tennis, Squash Badminton... Insoles

- Covered with a resistant, washable, comfortable material
- Stabilizes the heel during mediolateral foot movements
- Avoids foot sliding inside the shoe
- Decreases the risk of ankle sprains
- Limits the risk of foot fatigue