Diabetes

The Foot Alignment Connection

A Simple Solution that Solves a Key Piece of the Treatment Puzzle
Contents

- Getting Started...........................................4
- Diabetes Key Facts........................................5
- The Hidden Secrets of Medicine.......................6
- The Role of a Healthy Diet.............................7
- The Importance of Exercise............................8
- The Benefits of a Healthier Lifestyle...............9
- Ideal Treatment Goals................................10
- The Missing Piece to Treatment.......................11
- Why Does it Hurt to Exercise?.........................12
- Signs of a Foot Misalignment.........................13
- The Connection Between Foot Misalignment & Diabetes..........................14
- Treating Misaligned Feet..............................15
- An Internal, Minimally Invasive Solution to Misaligned Feet.............................................16
- The HyProCure Advantage............................17
- Misaligned Feet, Pressure & Why It Matters for Diabetics.................................18
- Get Back on Your Feet & Recover Your Health...19
Introduction

Diabetes is the world’s most rapidly growing chronic condition. It is estimated that 1 in 11 adults is diabetic. Even in our age of medical advancements, the number of people adversely affected is growing exponentially. The only way to prevent this destructive disease is by taking a step back and looking at it from a different angle.

This e-book is written to the millions of people who are affected with diabetes and to the tens of million more who will become diabetic.
Getting Started

+ Are you or a loved one affected by diabetes or pre-diabetes?
+ Do you have a family history of diabetes?
+ Do you have diabetes and back, hip, knee or foot pain?
+ Are you having trouble exercising due to joint pain?
+ Have you found that diet and medications alone are not helping you lose weight?
+ Are you worried about how diabetes is affecting your feet?

If you answered yes to any of these questions, you may be suffering from misaligned feet.

This e-book will give you information about how misaligned or flat feet can impact your health. It will help to explain how misaligned feet can make diabetes much harder to manage. Most importantly, it will explore the available treatment options to help get you back to a healthier you.
Diabetes Key Facts

- Every 7 seconds someone dies as a result of diabetes.
- 280 lives are taken every day due to complications of diabetes.
- 200 limbs are amputated every day as a complication of diabetes.
- 86 million people in the US are pre-diabetic. That’s 1 in 3 Americans.
- Every 20 seconds someone loses a limb due to diabetes.
- $670 million is spent on diabetes related conditions every day.

- There are 380 million people worldwide with diabetes. 30 million are in the US alone.
Diabetes is spreading at a rapid pace and once you have it, it’s nearly impossible to cure. Every year billions of dollars are spent on diabetic medications, which play a vital role in controlling high blood sugar levels. However, while they help to manage the symptoms, they do not actually “fix” the problem.

There isn’t a single medicine that doesn’t have associated side effects. In fact, many of the complications associated with diabetes are actually caused by the prolonged use of the medications that assist in lowering blood sugar. The best situation is to do all you can to stay off any medication, when possible.

Medicine can not cure diabetes, but exercise and a healthy diet are the best preventative actions.

- BMJ 2011;343:d4169  http://www.bmj.com/content/343/bmj.d4169.full
The Role of a Healthy Diet

Diet plays an important role in controlling diabetes. There can be no long-term treatment success without a healthy diet. As the saying goes, “what you put in, is what you get out”.

Key Tips to a Healthier Diet

+ Limit or eliminate sugar and grains from your diet.
+ Fructose is the most detrimental of any of the types of sugars.
+ Avoid sweetened drinks and processed foods, they are full of fructose.
+ Avoid trans fats. They will worsen insulin resistance.
+ Do eat saturated fats.
+ Get plenty of omega-3 fats from a high quality, animal based source.
+ Maintain your vitamin D levels.
The Importance of Exercise

The real key to making a positive difference is exercise. It is nearly impossible to get diabetes under control without beginning a daily fitness routine. Exercise increases the rate at which our body burns calories. The more you weigh, the more likely you are to become diabetic. Most people who are over-weight and also diabetic are typically inactive.

The great news regarding exercise is that you don’t have to go and buy expensive exercise equipment. The number one recommendation for both obesity and diabetes is to get out and walk. Walking increases blood circulation and metabolism, which allows you to drop excess weight and better control blood sugar levels.

Did you know?

You can burn up to 1,400 calories just by walking for 30 minutes five days a week, as well as lower your risk for high blood pressure, stroke, cancer and a number of other health conditions.

Note: Always contact your health care provider before beginning an exercise regimen. Check your feet daily for cuts or sores.
The Benefits of a Healthier Lifestyle

+ Lowers your blood sugar.
+ Improves insulin sensitivity, so your body’s insulin works better.
+ Reduces body fat.
+ Helps to build and tone muscles.
+ Lowers your risk for heart disease.
+ Improves circulation.
+ Preserves bone mass.
+ Reduces stress and enhances quality of life.
Ideal Treatment Goals

The medical community has reached a consensus with 4 main treatment goals.

+ Achieve and maintain a healthy body weight.
+ Be physically active. This means 30 minutes of moderate-intensity activity daily.
+ Follow a healthy diet.
+ Avoid tobacco use.

This all seems simple enough, so why is it so difficult to achieve? Furthermore, Why does the number of people affected by diabetes continue to grow year after year?

The Missing Piece to Treatment

It’s easy enough to change one’s diet, but the real challenge is regular daily exercise. This is the key to the successful treatment of diabetes.

We have to ask, what is a leading cause for someone not to exercise, especially if it’s going to save your life?

The answer to the question is a very powerful un-motivating force called pain. The reality is if your reward for exercising is pain, most likely you’re going to stop exercising.

Many people who exercise regularly develop:

+ Shin splints
+ Heel pain
+ Foot pain
+ Knee pain
+ Hip pain
+ Back pain

Pain is your body’s warning signal that something is not right.
There is a very common medical condition called talotarsal joint displacement, where the ankle bone (talus) becomes unstable and slips from it’s natural position on the heel bone. This partial ankle bone displacement is why some of us experience pain in our feet, ankles, knees, hips and back during or after physical activity.

Our feet serve as the foundation to our body, so when they are misaligned, it creates a chain reaction of unnatural motion to the rest of the body. This creates pain in the ankles, knees, hips and/or back. Exactly where the pain shows up is the “weakest link in the skeletal chain”, which may be different for every individual. This condition is present at birth and continues to worsen as we age.
Misaligned feet force certain muscles and tendons to work harder than they were designed to work. They over-stretch many ligaments and force your bones to become displaced. This means that the more you stand, walk or run, the more strain there will be to various parts of your body.

The majority of people with a misaligned hindfoot have a lowering of their arch, or flat foot, however it’s possible to have a normal appearing arch height.

Other signs of a misalignment are:

- Hip Pain
- Back Pain
- Knee Pain
- Flat Foot
- Overpronation
- Heel Pain (Plantar Fasciitis)
- Bunions
- Hammertoes
- Growing Pains

Foot misalignment is best seen from the front view. The lower leg should align with the forefoot.
The Connection Between Foot Misalignment & Diabetes

If your feet are misaligned, you will eventually develop pain in one or more joints. The pain causes us to stop exercising and the body’s metabolism slows. It doesn’t burn off the calories which leads to weight gain. The majority of people suffer with knee, hip and back symptoms, while only 20% have foot related pain.

Weight gain is a leading occurrence with diabetes.

Foot Misalignment  Pain while or after exercising  Stop exercising  Weight gain  Predisposed to, or harder to manage diabetes
Treating Misaligned Feet

Observation/No treatment
Misaligned feet are caused by an internal structural problem with the ankle and heel bone. The problem will not correct itself and will only continue to get worse over time.

Orthotics or arch supports
While they provide a temporary solution for some, many find that they don’t provide enough relief. Also, like glasses, they only work when you wear them. This option gives a false sense of correction.

Reconstructive surgery
This is used for severe conditions, and involves a large incision and long recovery. There are many potential complications and in most cases cannot be reversed. In this case, the “cure” can be worse than the disease.
An Internal, Minimally Invasive Solution to Misaligned Feet.

There is a minimally invasive procedure, called Extra-Osseous TaloTarsal Stabilization (EOTTS) where a small titanium stent is inserted into a natural space between the ankle and heel bones. This stent, called HyProCure®, maintains the normal hindfoot alignment while allowing the natural joint motion.

Enlarged to show detail. HyProCure measures to approximately 3/4s of an inch in length, which makes it smaller than your average paperclip.
The HyProCure® Advantage

Unlike orthotics, HyProCure is an internal permanent solution and functions with or without shoes. It is also 100% reversible and requires little recovery time, unlike traditional reconstructive surgery. It is FDA cleared (since 2004) and is used by leading foot and ankle surgeons in 60 countries. It is routinely used in both children and adults.

Most patients experience minimal pain after the procedure and are allowed to walk on their feet the same day. Once fully recovered, patients are able to run, jump and participate in physical activities, allowing them to finally experience life pain free again.*

HyProCure has been scientifically proven to:

+ have the highest success rate of any subtalar implant
+ positively affect to foot tissues, i.e. tendons, ligaments and nerves
+ normalize misaligned hindfoot bones
+ reduce high pressure areas to the bottom of the foot
+ improve arch height

* typical results for most patients but individual results may vary
Studies have shown that peak pressures on the bottom of a misaligned foot can lead to ulcers in some people with diabetes. **HyProCure has been clinically proven to redistribute pressure to the bottom of the foot.**

The red and orange areas in this image show areas with the most pressure under the foot. The image on the left is of a misaligned foot. Notice the red area on the ball of the foot where the foot pressures are unevenly distributed. This is an area where a foot ulcer is likely to occur. Compare with the right image after the insertion of HyProCure. The foot pressures are more evenly distributed decreasing the likelihood that an ulcer will form.
Making sure your feet are properly aligned is one of the first steps to becoming more active and enjoying more of your life pain free!

We hope that this e-book has helped you to better understand the importance of diet and exercise in the prevention and management of diabetes. If you or someone you love is being adversely affected by misaligned feet, find a foot alignment specialist at:

www.AlignMyFeet.com

For additional literature, please visit:
www.hyprocure.com/published-studies/
“A body in motion seeks to stay in motion. A body at rest seeks more rest.”

Keep your body in motion.

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