

The Diabetic Foot Management Center

introduces

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presenting

*“Don’t Let Diabetes Defeat
Us”*



Diabetes Statistics 2015

According to the American Diabetic Association 1 in 20 people born today will develop diabetes during their lifetime.

Total: 30.3 million children and adults (9.4% of the US population) have diabetes

Diagnosed: 23.1 million

Undiagnosed: 7.2 million



For all patients over the age of 20, statistics by ethnic background from 2013-2015 surveys

- For Men – 13 million or 11.8%
- Women – 12.6 million or 10.8%
- Non Hispanic African Americans – 12.7%
20 years or older have diabetes.
- For Seniors – 65 and older, 25.2% or 12.0 million have diabetes



Diabetes Statistics for Americans 2015

- Diabetes is a chronic disease for which there is no cure, but there is ***control***
- Diabetes is the 7th deadliest disease in the United States and accounts for approximately 252,806 deaths per year



- There are two type of diabetes: Type I and Type II
- Type 1 Diabetes is when the pancreas makes virtually no insulin.
- Type 2 diabetes occurs when the pancreas cannot make enough insulin to fulfill the **body's requirements to keep the blood glucose at normal levels.**



Complications of Diabetes

- **Cardiovascular** disease caused by atherosclerosis (excess buildup on the inner wall of a large blood vessel) accounts for approximately 68% of deaths among patients with onset of diabetes before 20 years of age
- **Blindness** -28.5% of diabetic patient over age 40 due to diabetic retinopathy.
- **Kidney disease** affects 10 - 21% of patients with diabetes
- **Neuropathy** due to decreased or damaged nerve function in approximately 60-70% will have mild to severe forms **in your feet**



There are two basic types of diabetic neuropathy

- Peripheral neuropathy is damage of the nerves closest to the skin and occurs most commonly in the feet and in the hands and is symmetrical on both sides of the body
- Autonomic neuropathy is damage to the nerves connected with our vital organs and result in the inability to interpret internal pain correctly such as the “silent heart attack”

“Silent” heart attack

- The most life threatening consequences of diabetes are *heart disease and stroke*, which strike people with diabetes more than twice as often as they do others.

Because of neuropathy these attacks are often “silent” and occur with little or no warning.

- Adults with diabetes have death rates 2 to 4 times higher than those without diabetes.

Amputations

- *Approximately 60% of non traumatic lower limb amputations occur in diabetic patients.*
- *In 2006, approximately 65,700 lower limb amputations (below the knee) were performed*
- *All of the conditions you are about to see, as simple as they may seem can lead to lower extremity amputation*

Onychomycosis (fun“gal” or fun“guy”) toenail



Another “funguy”



Why do I get Fungus?

- “Fungus” or onychomycosis is caused by trauma to the nail bed, predisposition to dermatological disorders, and the natural processes of aging. While this has been termed an infection, it is not contagious, rarely causes harm, but is considered unsightly. Today, the best treatments include topical medications and regular debridement. Oral medication has not yet proven to be successful despite the media marketing



Fungal Nails with Severe Ischemia (poor circulation)



The athlete of the foot



Psoriasis of the foot



Shoe pressure and no feeling leads to ulcer



Repeat offenders, corn plasters

“Don’t use if you are diabetic



Lamb's wool or cotton a wiser choice



Dry and painful



Skin cracks can lead to infection



Two weeks after appropriate skin care “the recipe”



Gout is from elevated uric acid



The symptoms of gout are often misdiagnosed

- Uric Acid is something the body produces and if it cannot secrete it or if too much is produced then the crystals precipitate (form) in the joints causing gouty tophi. Many items in our diets lead to gout. Alcohol, red meats, dark green vegetables. Some of our medications produce gout attacks too such as blood pressure medications; all of which should be addressed when gout is diagnosed.

Gout can be lethal to a diabetic – How bad can this get?



Gout causes “gouty tophi” a long term problem with cottage cheese like discharge



Skin cancer: Melanoma is the most unexpected places



Inflammation and dermatitis



Atherosclerosis (arterial calcification) of the foot causes poor or delayed healing



The organ transplant patient is 250 times more likely to get skin cancers: basil cell carcinoma



Squamous cell carcinoma: If too extensive, a tragic loss can result



Squamous Cell Carcinoma; same patient with recurrence



What is Neuropathy?

- One of the most common complications of diabetes and it means simply this: as blood sugar become elevated, nerves closest to the skin become either temporarily or permanently damaged depending on the extent and control of the disease.
- The result is lack of sensation in the toes, foot, ankle and sometimes the leg
- This creates a loss of protection that a normal **patient maintains: the “anesthetic” foot** which results in ulcers and infection 10-15% of the time.

What causes neuropathy?

- The leading cause of neuropathy is ***Diabetes***
- Other causes include, but are not limited to, alcoholism, spinal cord lesions, back injuries, liver dysfunction, anemia, hypervitaminosis, muscular dystrophy, multiple sclerosis, hypothyroidism, lupus, lyme disease, tertiary syphilis, and leprosy

Drop foot with 2nd toe ulcer



Ulcers: the greatest complication of neuropathy



New shoes one day



Another repeat offender



“I couldn't feel it; I couldn't see it,
but I could smell it doctor”



Midfoot ulceration



Ulcers should be measured for length, width and depth at each visit for treatment



Whirl pooled for one year



Ulcers commonly occur in high areas of pressure or dry skin



Stasis ulcerations are due to vein dysfunction in the leg



Stasis ulcer of the ankle



Wound care and antibiotics can make all the difference



Post polio and diabetes



Charcot Arthropathy

A special kind of problem



Charcot occurs one in every 500-750 diabetic patients. Note complete ankle collapse



The first sign of Charcot, is swelling and redness with subsequent loss of the ligaments



Charcot with complete collapse of the ankle and midfoot



Xray of Charcot foot with midfoot collapse



Ulcers caused from Charcot may be sterile initially but can result in tissue and bone infection if left untreated.



. Charcot arthropathy after surgical intervention.



Fluid Overload



Neuropathy and Infection: Hot water from the stove



An ingrown toenail of a normal patient



A diabetic patient with an infected
ingrown toenail.....another
bathroom surgeon Note the tight
skin and lack of hair



And if our infection is left untreated? Our greatest fear becomes a tragic loss.
Gangrene after an infected ingrown toenail



Brown recluse spider bite



Gangrene after spider bite in a patient with little or no circulation: dialysis



Osteomyelitis



Three months after surgery



Dry gangrene; from infection



Gangrene of the 2nd toe

“But doctor I didn’t feel anything”



Same patient opposite foot



Gangrene and burns: A hot plate of spaghetti



Ten years ago this probably would
have been amputated



A blood clot in January: Complete breakdown of the lower extremity by March with Gangrene with yet another tragic loss: above knee amputation



Repetitive mechanical pressure x 2 years



Three weeks after surgery



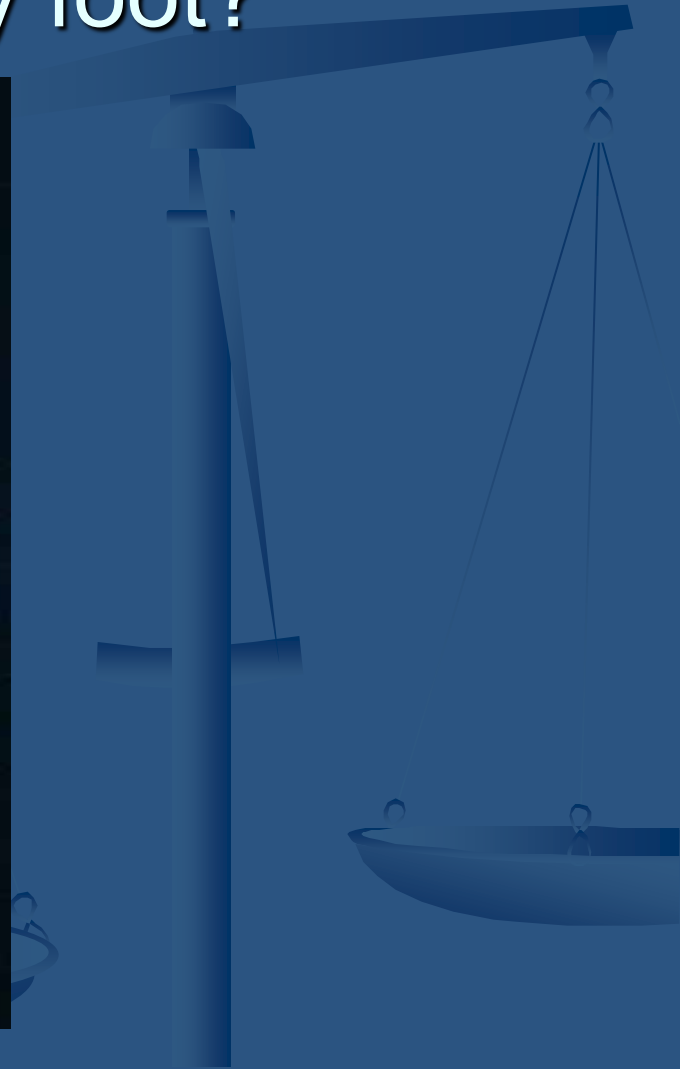
One year later



Cold exposure and dry gangrene



The patient arrives at the hospital for a serum blood glucose and asks, “can somebody check my foot?”



Gas or Wet gangrene



But still the foot can be saved



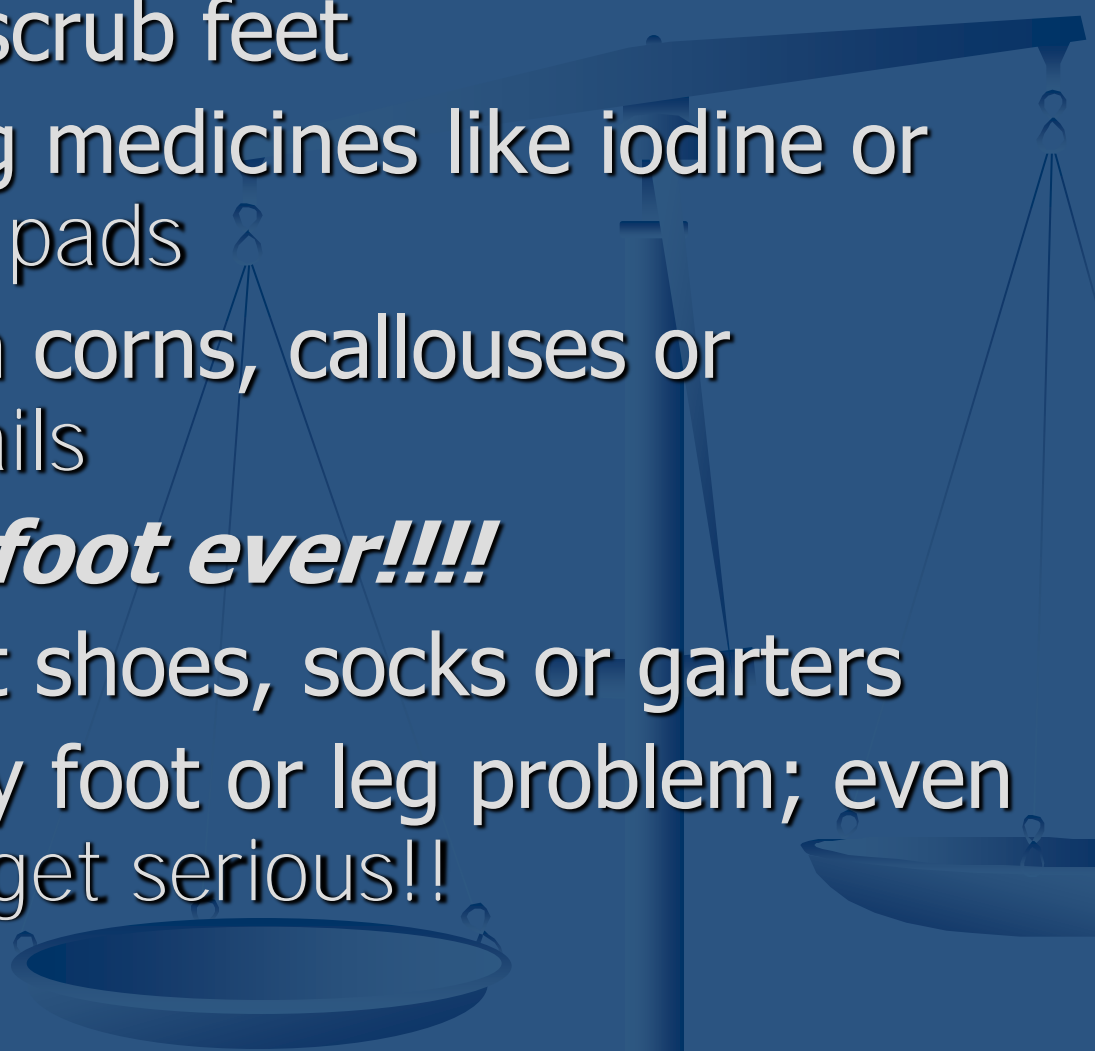
How to save a leg with poor blood supply? Femoral (above the knee) to popliteal (behind the knee)



to dorsalis pedis (on top of the foot)
bypass graft



Foot care Don'ts

- DON'T soak or scrub feet
 - Don't use drying medicines like iodine or medicated corn pads
 - Don't try to trim corns, callouses or ingrowing toenails
 - ***Don't go barefoot ever!!!!***
 - Don't wear tight shoes, socks or garters
 - Don't ignore any foot or leg problem; even small ones can get serious!!
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The Five “C’s” of Foot Care

- Clean! Clean and check feet daily. Wash with warm ***not hot*** water. Pat dry.
- Condition!! Use a moisturizer daily. Use one without perfume or alcohol
- Care!!! Clip normal nails straight across with a slight curve at the corners. ***Bathroom surgeons give up your license.***
- Cover!!!! Always wear shoes or slippers with a sole to protect your feet. Check your feet before and after wearing for any unusual marks or redness
- ***Use caution and call***

“It’s okay, you can wake up now.”

