

THE FOOT, DIABETES, AND NEUROPATHY

**DR. TED BOWLUS, FACFAS, DABPS, MS
ADJUNCT PROFESSOR OF NEUROSCIENCE
GRADUATE SCHOOL OF UNIVERSITY OF FINDLAY**


OBJECTIVES

- 1. TO LEARN PROPER CARE OF THE FOOT TO PREVENT PROBLEMS
- 2. TO LEARN PROPER MUSCLE EXERCISES AND FLEXIBILITY FOR AMBULATION AND BALANCE
- 3. WHAT IS DIABETES AND ITS RELATIONSHIP TO THE FOOT
- 4. WHAT IS THE BLOOD TEST: A1C (also called GLYCOSYLATED HEMOGLOBIN)
- 5. WHAT IS NEUROPATHY AND THE RELATIONSHIP TO THE FOOT

TEST QUESTIONS

- 1. WHAT SHOULD YOU **WEAR** IN THE HOUSE AND OUTSIDE ?
- 2. WHAT SHOULD YOU DO IF YOU GET A **BLISTER** ?
- 3. WHAT **EXERCISES** SHOULD YOU DO TO KEEP STRONG ? (AND HOW OFTEN).
- 4. WHAT IS **DIABETES** ? AND WHAT IS DIABETES TYPE I AND II ?
- 5. HOW DOES **DIABETES** AFFECT THE **FOOT** ?
- 6. WHAT IS THE SIGNIFICANCE OF THE BLOOD TEST **A1C** ?
- 7. WHAT IS **NEUROPATHY** AND HOW DOES IT AFFECT THE FOOT ?
- 8. WHAT CAN YOU DO ABOUT **NEUROPATHY**?

CARE OF THE FOOT

- **CLEANLINESS**
- **WEAR PROPER SHOES - FIT AND TYPE**
- **DO NOT WALK BAREFOOT**
- **CORNS AND CALLOUSES NEED CARE**
- **BLISTERS SHOULD BE HANDLED BY A PROFESSIONAL.
DO NOT PUNCTURE.**
- **DO NOT SOAK IN HOT WATER.  LUKEWARM ONLY**

“Walk” Ohio



- FOOT WEAR -

CASUAL WALKING SHOES

- FAIRLY LIGHTWEIGHT, SOFT INSIDE THE SHOE AND OUTSIDE MATERIAL ALSO.
- GOOD GRIP SOLE
- SHOCK - ABSORBING

SIMPLE EXERCISES

- WHY ?
- WHEN ?

HOW ?

1/4 SQUATS

SITTING USING WEIGHTS

STRETCHING WHILE SITTING

WALKING

Leg Exercises for walking and balance



Stretching while sitting



Stretching while standing



WHAT IS DIABETES

- **DIAGNOSIS**
- **SYMPTOMS**
- **TYPES AND WHY (PATHOLOGY)**

HOW DOES DIABETES AFFECT THE FOOT

- **MAYBE NO SYMPTOMS**
- **TINGLING**
- **PINS AND NEEDLES**
- **NUMBNESS**
- **MORE SUSCEPTIBLE TO INFECTIONS, CORNS, CALLOUSES, AND ULCERS**

A1C

(GLYCOSYLATED HEMOGLOBIN)

- **SIMPLE BLOOD TEST**
- **NORMAL IS ABOUT 5 TO 6**
- **SUGAR (GLUCOSE) MOLECULE STICKING TO A PROTEIN**
- **AFFECTS THE PROTEIN IN A BAD WAY**
- **CAN CAUSE NERVE PROBLEMS (NEUROPATHY, EYE PROBLEMS (RETINOPATHY), VASCULAR PROBLEMS (LESS CIRCULATION)**

CAUSES OF NEUROPATHY

- ✓ DIABETES
- ✓ HERNIATED DISC IN LOWER BACK
- ✓ ALCOHOLISM
- ✓ OTHER NEUROLOGICAL DISEASES

TYPES OF DIABETIC NEUROPATHY

- 1. NUMBNESS
- 2. HYPERSENSITIVE PAINFUL TYPE
- 3. RESTLESS LEG TYPE

TREATMENT OF DIABETIC NEUROPATHY

- LIVE WITH IT
- SPECIAL SHOES – SOFT, PROTECTIVE, LIGHT WEIGHT
- MEDICATIONS - VITAMINS, METANX
- OTHER MEDICATIONS – NEURONTIN, CYMBALTA, LYRICA
 - These act on the Central Nervous System
- MEDICATION FOR “ RESTLESS LEG SYNDROME “ - REQUIP

Walking Shoes

Nike



Brooks



Walking Shoes

Sketchers



Walk





Questions

And Answers