

#### LUPUS AND HEART DISEASE

SONAL CHANDRA, MD

RUSH UNIVERSITY MEDICAL CENTER

CHICAGO, IL



# INFORMATION ON HEALTH RISKS ASSOCIATED WITH LUPUS AND WAYS TO MINIMIZE RISKS

#### HYPERTENSION

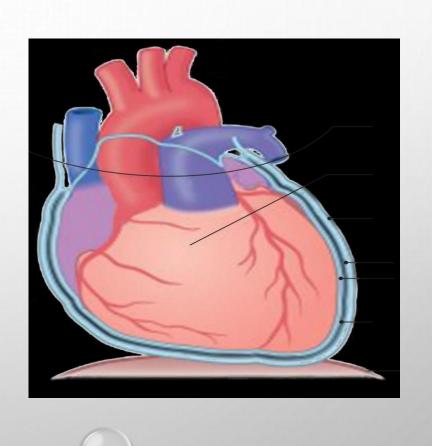
- 50% OF LUPUS PATIENTS WILL HAVE HTN
- BP > 140/90 MMHG (120/80 NORMAL
- CAUSES:
  - OVERWEIGHT STATUS
  - LONG TERM STEROID USE
  - KIDNEY DISEASE
  - MEDICATION INDUCED
- COMPLICATIONS
  - KIDNEY FAILURE, STROKE, HEART DISEASE



#### **PERICARDITIS**

#### INFLAMMATION OF THE PERICARDIUM

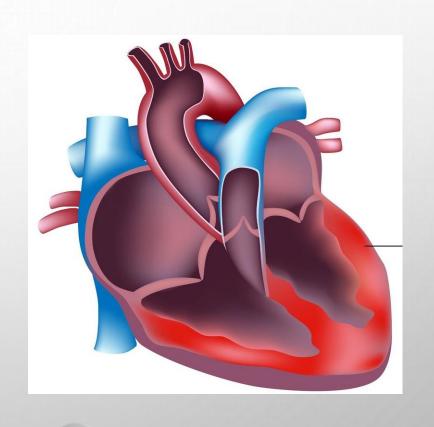
- COMMON MANIFESTATION: SYMPTOMATIC
   TO ASYMPTOMATIC
- TX: NSAIDS, STEROIDS, COLCHICINE



#### **MYOCARDITIS**

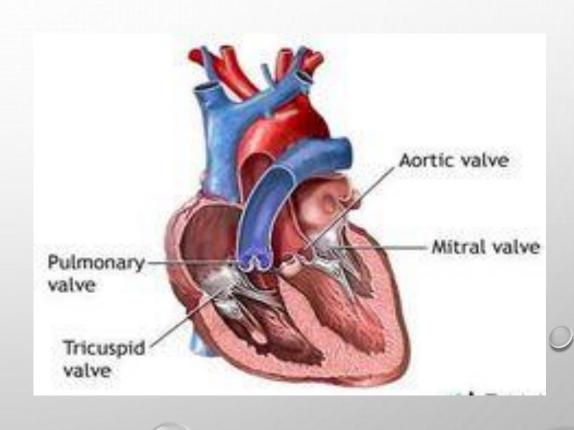
INFLAMMATION OF THE MYOCARDIUM.

- CHEST PAIN, SOB, FEVERS, PALPITATIONS
- CAN RESULT IN DECLINE IN HEART FUNCTION
- REVERSIBLE WITH TREATMENT OF DISEASE
   AND HEART MEDICATIONS
- UNCOMMON



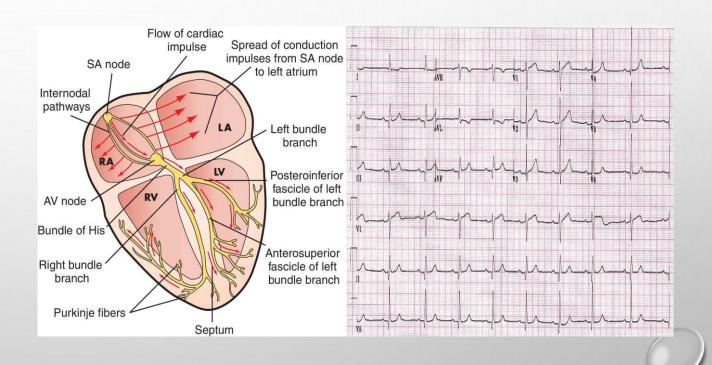
#### **VALVULAR DISEASE**

- ENDOCARDITIS- INFECTION OR INFLAMMATION OF THE HEART VALVES.
  - causes the surfaces of the heart valve to thicken or develop wartlike growths (lesions). These lesions can become infected, a condition called bacterial endocarditis.
  - · Valves can be leaky or stiff from thickening
  - APLA: clots on valves (stroke)
  - Monitoring and valve replacement when necessary
  - ASA



#### ARRHYTHMIA

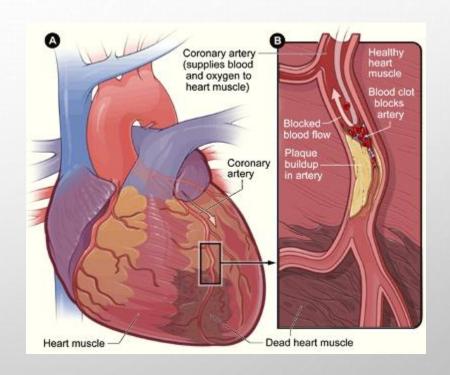
- FAST HEART RATE (DISEASE ACTIVITY)
  - SINUS TACHYCARDIA
  - ATRIAL FIBRILLATION
  - SUPRAVENTRICULAR TACHYCARDIAS
- EXTRA HEART BEATS
  - PVC, PAC





#### **CORONARY ARTERY DISEASE**

- ATHEROSLCEROSIS: THERE IS INCREASED
   LIKELIHOOD OF PLAQUES ON THE ARTERIAL
   WALLS
- THROMBOSIS OR CLOT FORMATION (APLAS)
- INFLAMMATION OF THE HEART ARTERIES
   WITHOUT BLOCKAGE.





# **CLINICAL PRESENTATION**

- CHEST PAIN, JAW PAIN
- SHORTNESS OF BREATH
- NAUSEA OR VOMITING
- LOSS OF CONSCIOUSNESS
- FATIGUE



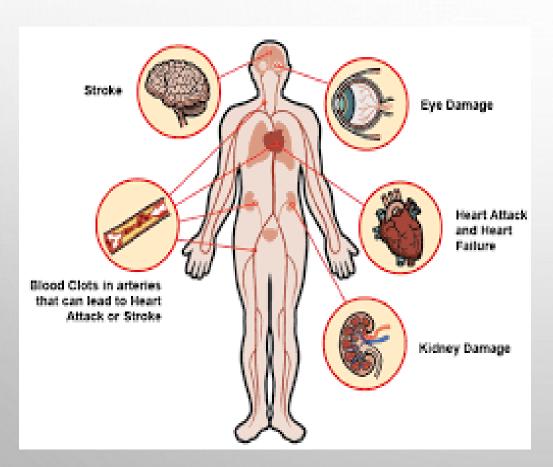


#### **TREATMENT**

- SEVERE BLOCKAGE OR HEART ATTACK: OPENING AND STENTING OF BLOOD VESSEL(S)
- \*MEDICAL MANAGEMENT: ASPIRIN (INCREASED RISK OF BLEEDING), BLOOD PRESSURE MEDICATION, CHOLESTEROL LOWERING MEDICATION
- **\$LIFESTYLE CHANGES: NUTRITION AND EXERCISE**
- **♦** CARDIAC REHABILITATION
- **❖ DECREASED STEROID USE**



# HYPERTENSION (HIGH BP)

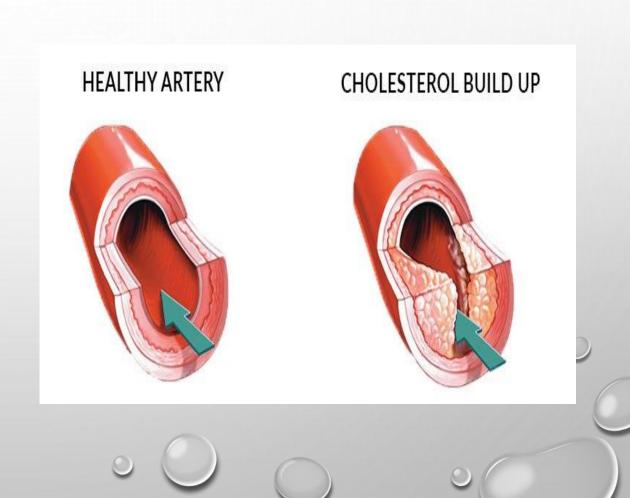


- EAT FOODS THAT ARE LOW IN SODIUM (SALT), CALORIES, AND FAT.
- EAT MORE FRESH FRUITS, VEGETABLES, AND LOW-FAT DAIRY PRODUCTS.
- LOSE WEIGHT IF YOU ARE OVERWEIGHT OR OBESE,
   AND INCREASE YOUR PHYSICAL ACTIVITY.
- TAKE YOUR BP MEDICATIONS REGULARLY
- MONITOR YOUR BP REGULARLY



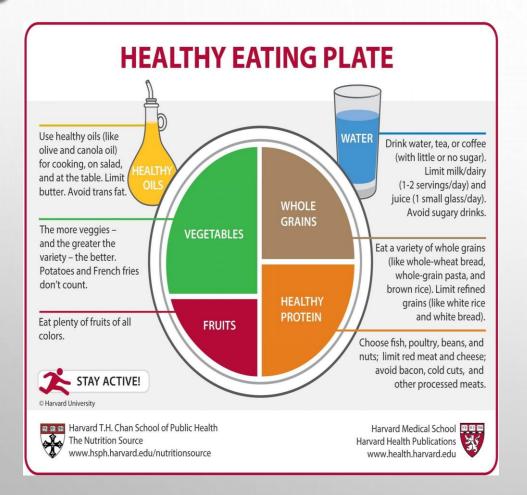
# HIGH CHOLESTEROL

- LDL: "BAD CHOLESTEROL"
- TRIGLYCERIDES: STEROIDS, DM
- HDL: IMPROVES WITH EXERCISE





#### **NUTRITION**





STRESSED
Spelled backwards is
DESSERTS





# FOODS TO EAT



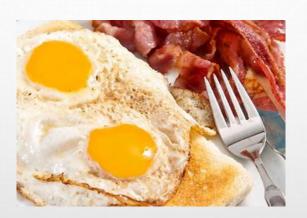






# FOODS TO AVOID













# FOODS THAT INCREASE TRIGLYCERIDE LEVELS



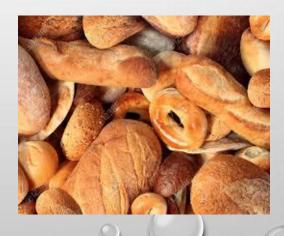
















- EAT FOODS WHICH ARE AS CLOSE TO NATURE AS POSSIBLE: UNPROCESSED
  - DECREASED ADDITIVES, PRESERVATIVES, FATS, AND SUGAR
- DECREASE CONSUMPTION OF REFINED CARBS AND PROCESSED GRAINS
- SATURATED/PARTIALLY HYDROGENATED FATS CAN SIGNIFICANTLY INCREASE RISK OF HEART DISEASE
- EAT PROTEINS FIRST, SATISFIES HUNGER MORE THAN CARBS
- STOCK UP ON HEALTH SNACKS: NUTS/SEEDS, FRUITS, RAW VEGGIES WITH HUMMUS/DIPS/PEANUT BUTTER, POPCORN (UNSALTED OR UNBUTTERED), DRIED PEAS OR EDAMAME, OCCASIONAL UNSWEETENED YOGURT



## LACK OF EXERCISE



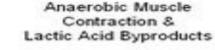


Constricted **Blood Vessels** & Hypertonic Muscle Fibers



Performance

Joint Stiffness & Muscle Weakness





Subluxation /

Vertebral Fixation

Stress Cycle



Muscle Hypertonicity & Trigger Points



Immobilization & Disuse



Pain

Avoidance

Recurrent Pain



Depression



Illness Behavior









#### BENEFITS OF EXERCISE

- REDUCE RISK FOR HEALTH PROBLEMS
- DEPRESSION, ANXIETY, COGNITIVE IMPAIRMENT
- CVD, STROKE, DIABETES, AND MORTALITY
- LOWERS BLOOD PRESSURE
- INCREASES METABOLISM
- IMPROVES LIPIDS
- FACILITATES CIRCULATION
- STRENGTHENS HEART FUNCTION
- CRITICAL FOR STRESS MANAGEMENT



## **EXERCISE RECOMMENDATIONS**

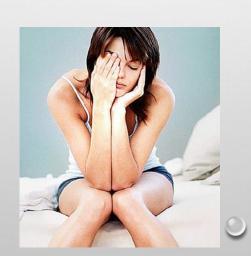
- LOW-IMPACT EXERCISE
- START GRADUALLY
- LISTEN TO YOUR BODY
- DO NOT EXERCISE IF JOINTS ARE HOT,
   SWOLLEN, TENDER OR IN PEAK SUN HOURS.
- SOME DAYS WILL BE BETTER THAN OTHERS
- ALWAYS CHECK WITH YOUR DOCTORS FIRST





- HEADACHES, TIGHT MUSCLES, ANXIETY, PALPITATIONS,
   DIFFICULTY SLEEPING
- REDUCES IMMUNE FUNCTION, IMPAIRS LIBIDO, CAUSES WEIGHT GAIN
- CAN BE AN UNDERLYING FACTOR IN CHRONIC DISEASES, INCLUDING HEART DISEASE, DIABETES AND CANCER







#### NOT ALL STRESS IS BAD

- SOME INDIVIDUALS CAN ACCOMPLISH MORE "UNDER STRESS"
- A HEALTHY AMOUNT OF STRESS CAN BE INSPIRING AND MOTIVATING
  - "GIVE ME A DEADLINE"
  - RACE TO THE FINISH LINE
- PLEASURABLE: HORROR MOVIES, ROLLER COASTERS, FIRST-DATES

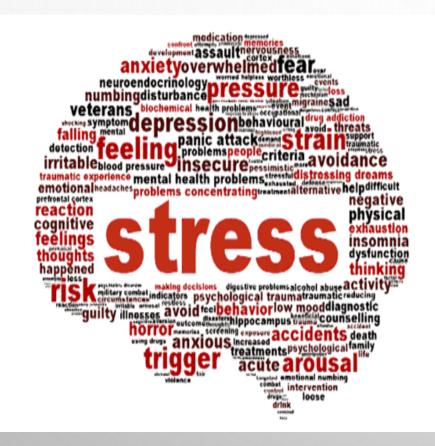


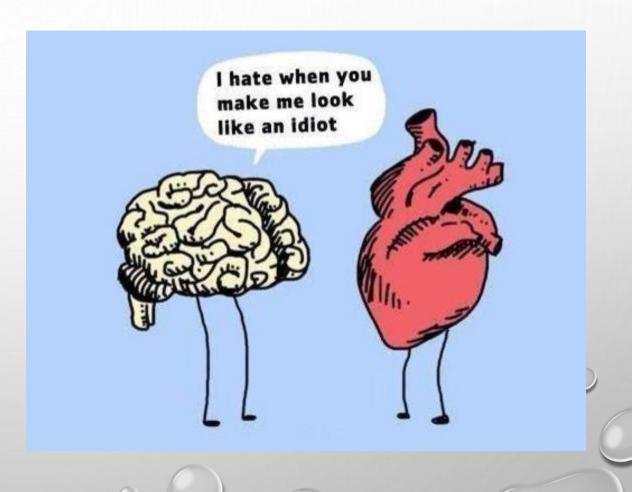






#### **BRAIN-HEART CONNECTION**

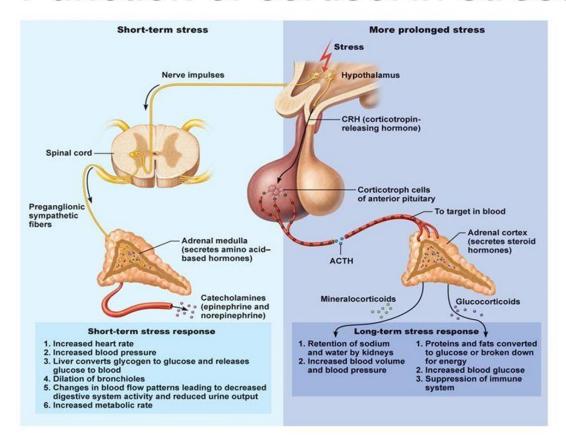






#### STRESS PHYSIOLOGY

#### Function of cortisol in stress



- INCREASE IN HR AND BP
- PUPIL DILATION
- VEINS CONSTRICT (LESS BLOOD)
- INCREASE IN BLOOD-GLUCOSE LEVELS
- TENSING OF MUSCLES
- SLOWING OF DIGESTION AND IMMUNE RESPONSE
- TROUBLE FOCUSING ON SMALL TASKS

#### CARDIOVASCULAR MANIFESTATIONS FROM STRESS

#### HIGH LEVELS OF ADRENALINE AND CORTISOL

- INCREASE IN BLOOD PRESSURE
- INCREASE IN BLOOD GLUCOSE
- INCREASE IN HEART RATE FROM BASAL RATES
- HIGHER CHOLESTEROL LEVELS

- PALPITATIONS
- HEART ATTACKS
- IMPAIRMENT IN CONCENTRATION/MEMORY
- STROKES
- FATTY LIVER DISEASE



# STRONG WOMAN





A woman's Strength isn't just about how much she can handle before she breaks.

It's also about how much she must handle after she's BROKON.

# NEGATIVE PSYCHOLOGICAL STATES AND CVD

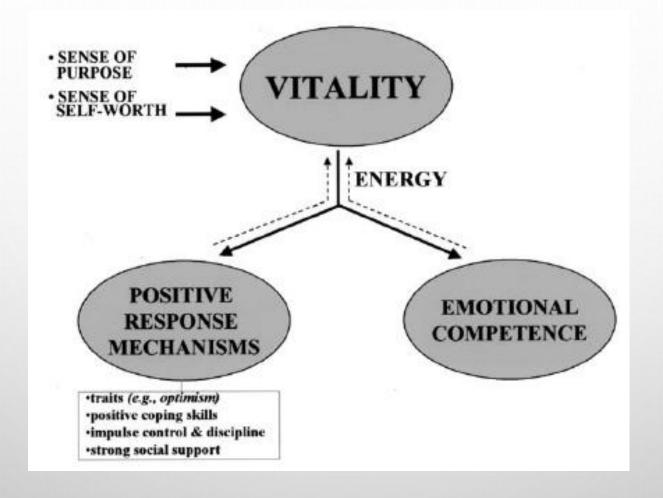
- 5 NEGATIVE STATES HAVE BEEN LINKED TO CVD
  - HOPELESSNESS
  - PESSIMISM
  - RUMINATION
  - ANXIETY
  - ANGER





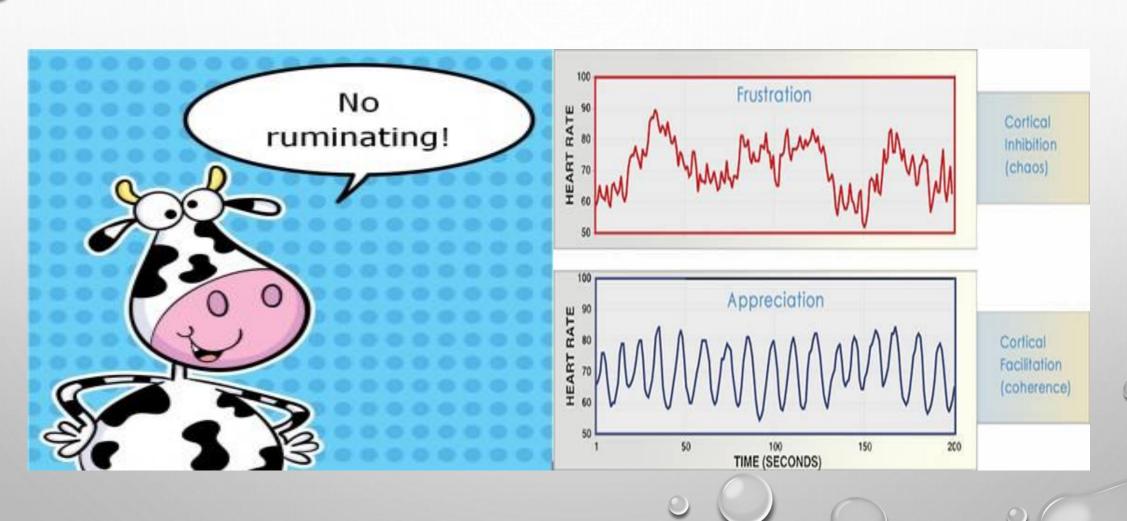


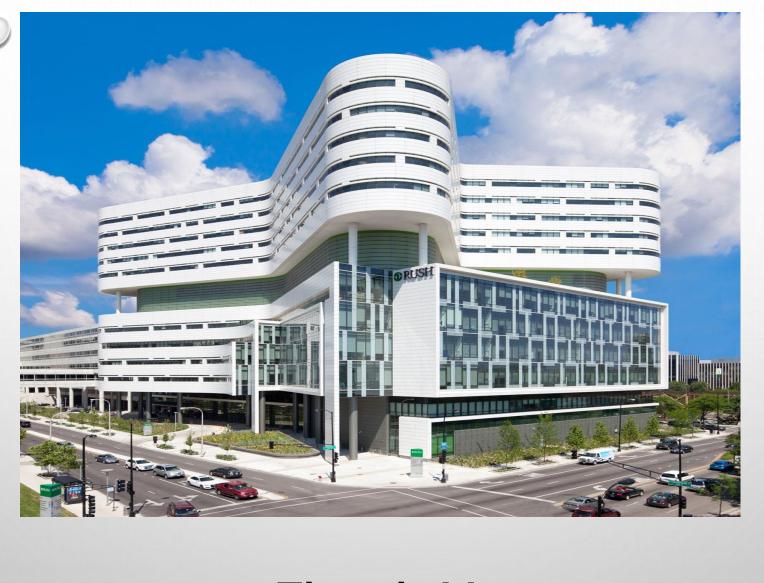






# TRANSCENDENTAL MEDITATION





Thank You