LIFESTYLE CHOICES AS A CO-TREATMENT TO MANAGING CHRONIC DISEASE

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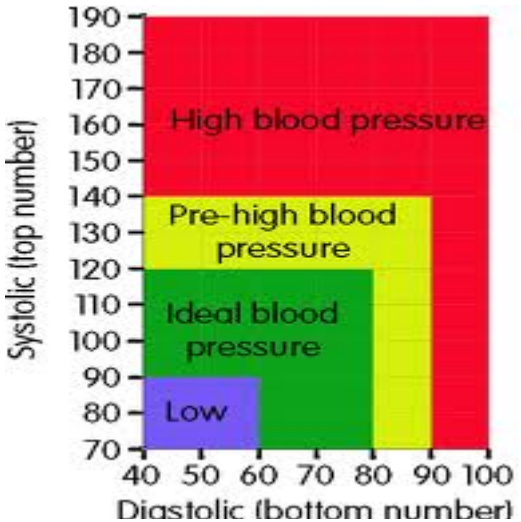
LIFESTYLE AND POTENTIAL IMPACT

- *“Engagement of the patients in the management of their disease can make a profound difference in their quality of life, treatment trajectory and the cost of care.”*

HYPERTENSION

HIGH BLOOD PRESSURE

BLOOD PRESSURE: RECOMMENDED LEVELS



- **Blood Pressure**
- Traditionally, we monitor blood pressure while sitting or lying down. A more accurate measurement is ambulatory blood pressure monitoring. This can detect nocturnal hypertension, resistant hypertension and transient hypertension.
- Measurement indicators
  - Ideal < 120/80 mm/Hg
  - Borderline 121-139 systolic and 81-89 diastolic mm/Hg
  - Hypertension I 140-159 systolic and 90-99 diastolic mm/Hg
  - Hypertension II > 160 systolic and > 99 diastolic mm/Hg

- Reference: http://www.prnewswire.com/news-releases/hypertension-not-so-simple--ambulatory-blood-pressure-monitoring-would-provide-a-more-accurate-measurement-of-the-prevalence-of-hypertension-169514216.html
- http://www.nhlbi.nih.gov/hbp/detect/categ.htm

LIFESTYLE CHOICES FOR HYPERTENSION CONTROL

- Don't smoke
- Maintain a healthy weight
- Eat a healthy diet, focusing on fruits, vegetables and low-fat dairy products, low in saturated fats, and especially, control the salt in the diet (DASH diet – always let the doctor know before starting the DASH diet to ensure more frequent blood pressure monitoring)

Reference: http://www.mayoclinic.com/health/high-blood-pressure-medication/HI00028

DASH DIET GIST

- Eat more fruits and vegetables and whole grains
- Lower saturated fat intake
- Lower sodium intake to 1200 mg or less/day
- Increase fiber and water consumption
- Limit alcohol consumption— No more than one drink a day for women and two a day for men

DASH DIET RESOURCES

- Your Guide to Lower Your Blood Pressure with DASH
- https://www.nhlbi.nih.gov/files/docs/public/heart/new_dash.pdf
- Free Guide to Lowering Blood Pressure publication, menus, meal planning
- http://www.nhlbi.nih.gov/files/docs/public/heart/hbp_low.pdf
- Information on the DASH diet
- http://www.mayoclinic.org/healthy-living/nutrition-and-healthy-eating/in-depth/dash-diet/art-20048456
- Tips, professional resources, nutrition education, recipes, professionally discounted book sales, culturally adaptations, links
- http://dashdiet.org/

WHY NOT EXERCISE?

- Exercise can be helpful to lose weight
- Exercise can be contraindicated for those with uncontrolled or transient hypertension
- Resistance training can elevate blood pressure due to the Valsalva maneuver (holding breath during exertion)
- It is critical to get doctor clearance before starting an exercise program
- Beta blockers lower blood pressure and heart rate, which may impact exercise routines and make exercise more challenging for some
- Recommend testing exercise effects on blood pressure under the care of a primary care provider; most people's blood pressure lowers after moderate walking

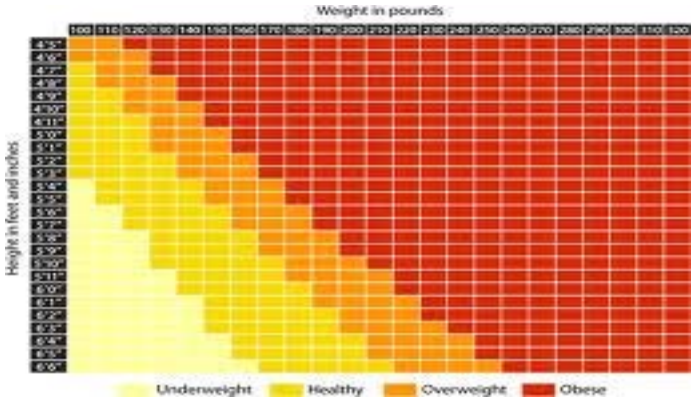
LIFESTYLE CHOICES FOR HYPERTENSION CONTROL

- If exercise is not contraindicated, exercise by getting 30 minutes of moderate activity — even if you need to break up your activity into three 10-minute sessions — on most days of the week (must be approved by a physician, not generally effective for those with transient hypertension)

Reference: http://www.mayoclinic.com/health/high-blood-pressure-medication/HI00028

RESEARCH TO SUPPORT LIFESTYLE CHANGE

- In midlife, an increase in BMI of 1 point was associated with a 12% increase in risk of hypertension (Huang, Wllett, Manson, Rosner, Stampfer, Speizer, & Colditz, 1998).
- A cross-sectional general population study found that for every 4.5 pound of excess body weight had a corresponding increase of 3 mm Hg in systolic and 2 mm Hg in diastolic pressures (Boe, Humerfelt, & Wedervang, 1957; Epstein, Francis, Hayner, Johnson, Kjelsberg, & Napier, 1965).
- A low-fat, high-fiber vegetarian diet, even without reduced salt intake, can lower blood pressure by as much as 10 percent (http://www.pcrm.org/health/health-topics/cholesterol-and-heart-disease).



RESEARCH TO SUPPORT LIFESTYLE CHANGE

- Stand-up work stations
  - May help to decrease abdominal obesity, which reduces the risk for high blood cholesterol, high blood glucose, hypertension, and Type II diabetes.
  - Decreases waist circumference and central fat distribution, which decreases triglyceride levels and increases HDL cholesterol (Despres, Allard, Tremblay, Talbot, & Bouchard, 1985).

RESEARCH TO SUPPORT LIFESTYLE CHANGE

- Walking 10 minute a day lowers the risk of high blood pressure by 12%. Each additional 10 minutes continues to lower the risk by an additional 12%.
- Learn more about the effects of walking on health from Doc Mike Evan's video: https://www.youtube.com/watch?v=aUaInS6HIGo

HYPERLIPIDEMIA

HIGH CHOLESTEROL

LIPID RECOMMENDED LEVELS

- **Cholesterol**
- Total cholesterol < 200 mg/dL
- HDL > 60 mg/dL
- LDL < 100 mg/dL if you have high risk for heart disease and < 130 mg/dL if you are otherwise healthy
- Ratios <3.5 to 1

- **Trigylcerides**
- Normal < 150 mg/dL
- Borderline High (150-199 mg/dL)
- High (200 mg/dL or more)

Reference: http://www.fda.gov/forconsumers/byaudience/forwomen/ucm118595.htm

RESEARCH TO SUPPORT LIFESTYLE CHANGE

- In the Framingham study, a 10% decrease in relative weight was associated with a decrease in plasma cholesterol of 12 mg/dL (Kannel & Gordon, 1979).

- Weight loss of only 5-10% could significantly reduce the risk of developing diabetes and heart disease in those who are overweight and obese (Knowler, Barrett-Conner, Fowler, Hamman, Lachin, Walker, & Nathan, 2002).

LIFESTYLE CHOICES FOR CHOLESTEROL CONTROL – LOSE WEIGHT

- Weight management
  - Losing weight around middle
  - Losing weight at any age can help reduce the risk of preventable disease.
- Lose weight – particularly body fat.
  - Initially target a 5-10 pound weight loss
  - Eventually lose 5-10% and/or body fat
- Obesity lowers HDLs

Carroll, K.K., Giovannetti, P.M., Huff, M.W., Moase, O., Roberts, D.C., & Wolfe, B.M. (1978). Hypocholesterolemic effect of substituting soybean protein for animal protein in the diet of healthy young women. American Journal of Clinical Nutrition, 31:1312-1321.

Reference: http://www.fda.gov/forconsumers/byaudience/forwomen/ucm118595.htm

http://www.mayoclinic.com/health/reduce-cholesterol/CL00012

BLOOD CHOLESTEROL AND VASCULAR DISEASE

- A plant-based diet free of cholesterol is an effective treatment for the reduction of vascular disease and coronary artery disease.

Castelli , WP (1998). The new pathophysiology of coronary artery disease. *American Journal of Cardiology*. 82(10B):60T-65T.

- Framingham data show that only patients with cholesterol levels of less than 150 milligrams per deciliter (mg/dl) achieve the lowest coronary artery disease risk.

Trout, DL (1991). Vitamin C and cardiovascular risk factors. *American Journal of Clinical Nutrition*, 53:322S-325S.

- For every 1% drop in blood cholesterol, studies show a 2% decrease in the likelihood of a heart attack.

Krotkiewski ,M., Bjorntorp, P., Sjostrom, L., & Smith, U. (1983). Impact of obesity on metabolism in men and women: importance of regional adipose tissue distribution. *Journal of Clinical Investigation,* 72:1150-1162.

LIFESTYLE CHOICES FOR CHOLESTEROL CONTROL: BETTER NUTRITION

- Increase fiber intake, with additional water, especially soluble fiber
  - Women 25 g/day
  - Men 35-39 g/day
- Every 10 grams of fiber per day reduces the risk of dying by 10 percent (Yang, Y., Zhao, L.G., Wu, Q.J., Ma, X., & Xiang, Y.B. (2105). Association between dietary fiber and lower risk of all-cause mortality: A Meta-Analysis of Cohort Studies. *American Journal of Epidemiology,* 181:83-91.
- Increase plant based fats and lower animal based fats
  - Nuts and seeds
  - Whole grains
  - Legumes
  - Fresh fruits and vegetables
- Eat foods high in Vitamin C (Carroll ,K.K., Giovannetti, P.M., Huff, M.W., Moase, O., Roberts, D.C., & Wolfe, B.M. (1978). Hypocholesterolemic effect of substituting soybean protein for animal protein in the diet of healthy young women. American Journal of Clinical Nutrition, 31:1312-1321.
- Limit sugar intake
- Dietary changes
  - Lower animal sourced overall intake. Many people are surprised to learn that chicken contains as much cholesterol as beef, 25 mg per ounce (Swain, J.F., Rouse, I.L., Curley, C.B., & Sacks, F.M. (1990). Comparison of the effects of oat bran and low-fiber wheat on serum lipoprotein levels and blood pressure. *New England Journal of Medicine,* 322(3):147-152.
  - Lower saturated fat intake (mostly animal sources)
  - The majority of fat intake from polyunsaturated and monounsaturated sources (90%)
  - Eliminate trans fat
  - Limit dietary cholesterol
- Increase foods high in omega-3
  - Nuts and seeds, flaxseed is the highest
  - Fish 2 times per week
  - Cold pressed canola oil

MORE VEGETARIAN … LESS ANIMAL PRODUCTS

- Too much fat in animal products, even the healthier choices:
- Leanest cuts of beef, about 30 percent of the calories come from fat.
- Skinless chicken is nearly as high at 23 percent.
- Most cheeses contain 60 to 80 percent of calories from fat,
- Ice creams often contain 45 to 65 percent.
- Butter, margarine, and oils of all types typically contain 95 to 100 percent of calories from fat.
- Grains, beans, vegetables, and fruits have less than 10 percent of their calories coming from fat.

http://www.pcrm.org/health/health-topics/cholesterol-and-heart-disease

RESEARCH SUPPORTING VEGETARIAN DIETS

- One study showed that people who adopt a vegetarian diet reduce their saturated fat intake by 26 percent and significantly lower cholesterol levels in just six weeks.
- A more recent study revealed that when participants switched to a strict low-fat vegetarian diet for about two weeks, they lowered their total serum cholesterol and blood pressure by 11 percent and 6 percent respectively, and men lost an average of 5.5 pounds and women an average of 2.2 pounds.
- Researchers in a 2014 study put 198 patients with cardiovascular disease on a diet without fish, meat, dairy, or added oils. Eighty-nine percent of the participants adhered to the diet, and of that group, 81 percent improved their symptoms and experienced fewer complications from heart disease. In addition, they lost an average of 18 pounds, while 22 percent saw a complete reversal of their condition.
- Studies show that replacing animal protein with soy protein reduces blood cholesterol levels even when the total amount of fat and saturated fat in the diet remains the same.

Schnall,P.L., Pieper, C., Schwartz, J.E., et al. (1990). The relationship between job strain, workplace diastolic blood pressure, and left ventricular mass index. *Journal of the American Medical Association,* 263:1929-1935.

Ornish, D., Brown, S.E., Scherwitz, L.W., et al. (1990). Can lifestyle changes reverse coronary heart disease? *Lancet,* 336:129-133.

MEDITERRANEAN DIET FOR CHOLESTEROL CONTROL

- Mediterranean Diet - Recipes, meal plans, pyramid, resources
- http://oldwayspt.org/resources/heritage-pyramids/mediterranean-diet-pyramid

- Guide to the Mediterranean diet.
- http://www.webmd.com/food-recipes/guide/the-mediterranean-diet

- Recipes and menus. Free download of Mediterranean Diet Cookbook.
- http://www.eatingwell.com/recipes_menus/collections/healthy_mediterranean_recipes

LIFESTYLE CHOICES FOR CHOLESTEROL CONTROL: EXERCISE

- Physical activity
  - Exercise lowers LDL (bad cholesterol) and raises HDL (good cholesterol) (Carroll KK, Giovannetti PM, Huff MW, Moase O, Roberts DC, Wolfe BM. (1978). Hypocholesterolemic effect of substituting soybean protein for animal protein in the diet of healthy young women. American Journal of Clinical Nutrition, 31:1312-1321.)
  - HDLs picks up and disposes of LDLs.
- Increase cardiovascular activity to 150 minutes per week
- Exercise at least 30 minutes most days.
  - ***Benefits***
    - Reduction in body weight, blood pressure, harmful LDL cholesterol
    - Increase in beneficial HDL cholesterol and insulin sensitivity
    - 30 to 60 minutes or more of moderate-intensity physical activity on most, if not all, days of the week to reduce heart disease risk by 30-40% (*American Heart Association, American College of Sports Medicine and the Center for Disease Control)*
  - *Risks of inactivity*
    - The risk for heart disease is 1.5 to 2.4 times higher for people who are inactive compared with those that are regularly active

LIFESTYLE CHOICES FOR CHOLESTEROL CONTROL: OTHER CONSIDERATIONS

- Take medication, as prescribed
- Don't smoke – smoking does not increase cholesterol, but it can decrease HDLs (Carroll KK, Giovannetti PM, Huff MW, Moase O, Roberts DC, Wolfe BM. Hypocholesterolemic effect of substituting soybean protein for animal protein in the diet of healthy young women. Am J Clin Nutr. 1978;31:1312-1321.)
- Drink in moderation or less.

LIFESTYLE STRATEGIES: STRESS

- Manage your stress
  - Make a list of stress-reducing activities.
  - Get seven to eight hours of sleep a night.
  - Stress and depression can increase risk of plaque build-up and can directly trigger a heart attack in people with underlying heart disease.

DIABETES

BLOOD SUGAR TESTING

- What blood glucose numbers mean when there is no diagnosis of diabetes present

Categories	**Blood Sugar Levels**
Normal	70-99 mg/dL
Pre-diabetic	100-125 mg/dL
Diabetes	>126 mg/dL over two different days

BLOOD SUGAR TESTING

- What blood glucose numbers mean when a diagnosis of diabetes is present

Time of Test	**Ideal for Adults With Diabetes**
Before meals	70-130 mg/dL
After meals	Less than 180 mg/dL*
Source: American Diabetes Association, 2009	

BLOOD SUGAR TESTING

- When a client should follow up with physician:
  - A fasting blood sugar level more than 180 mg/dL
  - Blood sugar is greater than 180 mg/dL for more than a week
    - Two consecutive readings greater than 300 mg/dL
  - Blood sugar level less than 70 mg/dL
    - Blood sugar is less than 70 mg/dL and you have more than one unexplained low blood sugar reaction a week
  - A fasting glucose level below 40 mg/dL (2.2 mmol/L) in women or below 50 mg/dL (2.8 mmol/L) in men that is accompanied by symptoms of hypoglycemia

BLOOD SUGAR TESTING – HBA1C

- The hemoglobin A1c test (HbA1c, glycated hemoglobin test, or glycohemoglobin)
  - Important blood test used to determine how well the diabetes is being controlled
  - Provides an average of blood sugar control over a six to 12 week period
  - Used in conjunction with home blood sugar monitoring to make adjustments in diabetes medicines
  - Test every 2-3 months
  - Target level without diabetes is 5
  - Target level for diabetes is <7, according to the ADA and <6.5, according to endocrinologists

BLOOD SUGAR TESTING – HBA1C

Average Blood Glucose Levels (mg/dL)	HbA1c (%)
124 mg/dL	6.3
147 mg/dL	7
180 mg/dL	8
214 mg/dL	9
247 mg/dL	10
280 mg/dL	11

BLOOD SUGAR TESTING

- ABCs of diabetes is target ranges in the following tests:
  - A stands for the A1c or hemoglobin A1c test <6.5
  - B is for blood pressure <120/<80
  - C is for cholesterol (lipids)
  - <200 total
    - <130 LDL without family history of heart disease or <100 with family history
    - >60 HDL
    - <150 triglycerides

References: http://diabetes.webmd.com/diabetes-diet-healthy-diet-basics

BLOOD SUGAR TESTING – HOW OFTEN

- How often to test blood glucose?
  - Follow physician recommendations. Frequency and timing of blood sugar measurements should be individualized
  - Usual recommendations: Before meals, After meals, Bedtime
    - Daily blood sugar checks are especially important for people on insulin or the sulfonylureass class of antidiabetes drugs.
  - Acute or chronic illnesses or changes in medications may affect blood sugar level. Test more frequently when ill
  - Certain conditions may interfere with an accurate reading of blood sugar and include: Anemia, Gout, High air temperature, Humidity, Altitude

REFERENCES

- http://diabetes.webmd.com/guide/how-test-blood-glucose?page=1
- http://diabetes.webmd.com/guide/how-test-blood-glucose?page=2
- http://diabetes.webmd.com/blood-glucose?page=4

GRAINS
MAKE HALF OF YOUR GRAINS WHOLE

- In a study of more than 160,000 women whose health and dietary habits were followed for up to 18 years, those who averaged 2 to 3 servings of whole grains a day were 30 percent less likely to have developed type 2 diabetes than those who rarely ate whole grains.
- When the researchers combined these results with those of several other large studies, they found that eating an extra 2 servings of whole grains a day decreased the risk of type 2 diabetes by 21 percent.

- Reference: de Munter JS, Hu FB, Spiegelman D, Franz M, van Dam RM. Whole grain, bran, and germ intake and risk of type 2 diabetes: a prospective cohort study and systematic review. *PLoS Med,* 2007; 4:e261

FRUITS & VEGETABLES

- Colorful plate: Five colors -Red, orange/yellow, green, white, blue/purple
- Variety: Best mix of vitamins and minerals
  - Raw or lightly steamed is best to retain optimal vitamin content
- Target lower glycemic fruits and vegetables
  - Lower glycemic fruits: Berries (of any kind), apples, green bananas, citrus. Those with edible skins and seeds tend to be the lowest in glycemic index
  - Lower glycemic vegetables: Greens, celery, cabbage, broccoli, beans, onions, garlic
- Limit higher glycemic fruits and vegetables
  - Higher glycemic fruits: Tropical fruits, melons (of any kind), ripe bananas
  - Higher glycemic vegetables: Carrots, potatoes, peas, corn, lima beans

- Reference: http://www.diabetes.org/food-and-fitness/food/what-can-i-eat/carbohydrates.html

EATING RIGHT EVERY DAY

- Fiber - 25-39 grams of fiber each day helps to manage blood sugar
  - Studies suggest that people with type 2 diabetes who eat a high fiber diet can improve their blood sugar and cholesterol levels
  - Similar results have been suggested in some studies in people with type 1 diabetes

CARBOHYDRATES

- Recommendations
  - 3-4 carbs per meal (assuming 3 meals per day)
  - Serving of carbohydrates is 15 grams
  - Each gram of fiber deducts one gram of carbohydrate

OILS - KNOW YOUR FATS

- Eat a low-fat diet, higher proportion of unsaturated fats
  - Target poly-, mono-, and un-saturated fats (90% of total fat intake)
    - Eat more omega-3 fatty foods - Polyunsaturated, omega-3, most important for vascular health
      - Flaxseed, fish oil, walnut, and canola
    - Monounsaturated
      - Olive, canola, peanut
    - Polyunsaturated, omega-6
      - Safflower, sunflower, corn, soybean, walnut, and cottonseed
- Limit or avoid saturated and trans fats

MEAT AND BEANS
GO LEAN ON PROTEIN

- Lean meats
  - Portion = deck of cards
  - More fish and poultry, less beef and pork
- Use bean, nuts and seeds as a meat substitute
  - Polyunsaturated and monounsaturated fats
  - Omega-3 (fish, nuts and seeds)

TOP DIABETIC SUPER FOODS

- Beans
- Dark Green Leafy Vegetables
- Oranges
- Berries
- Tomatoes
- Fish
- Whole Grains
- Nuts
- No sugar and artificial sweetener added yogurt

DISCRETIONARY CALORIES

EXTRA LUXURY FOODS

- Alcohol
  - A lot of calories
  - Processed similar to sugars
  - Usually not recommended for diabetics, must speak with physician

TRICKS THAT WORK

- Stick to regular mealtimes, 3 meals and 3 snacks, Diminishes cravings and binge eating.
  - Eating every 2-3 hours helps to maintain proper blood sugar. Optimizes energy levels. Keeps metabolic rate at its highest potential
- Using smaller plates helps to reduce portions
- Choose foods you like and add vegetables. Lasagna or pasta dishes, add eggplant or zucchini. Rice dishes, use half rice and half legumes, such as lentils or red beans. Sandwiches, add sliced cucumbers, red and yellow peppers, onion, tomato.

PHYSICAL ACTIVITY

- Client should speak with their doctor before starting an exercise program
- May be important to test blood sugar before and after exercise to get a better feel of exercise's impact on blood sugar levels. Can also be used as a reward/incentive.
- If exercise drops blood sugar too much, ensure client keep an easy-to-convert-into-quick-energy, such as fruit. Usually need 15-20 grams of carbohydrates.

EXERCISE GUIDELINES

- 30 minutes of physical activity daily
  - At least 2 days a week of resistance/strength training. Strength or resistance training has been shown to lower blood sugar levels
  - Have client test before / after to demonstrate positive effect of exercise on blood sugar levels through glucose testing. Graduate to suggesting 10-15 minutes of walking after each meal.

DIABETES AND SLEEP

- According to Dr. Mark Mahowald, director of the Minnesota Regional Sleep Disorders Center in Hennepin County, the body's reaction to sleep loss can resemble insulin resistance, a precursor to diabetes.
  - In insulin resistance, cells fail to use the hormone efficiently, resulting in high blood sugar.

Reference: http://www.webmd.com/sleep-disorders/excessive-sleepiness-10/diabetes-lack-of-sleep

CONCLUSION

- Test blood sugar
- Know what ABC numbers are
- Try to eat better each day
- Increase physical activity
- Manage weight
- Get enough sleep
- Keep alcohol consumption down to a minimum or give it up entirely

METABOLIC SYNDROME

METABOLIC SYNDROME

Definition:

- A cluster of disorders (3 or more of the diagnostic criteria) of the body's metabolism that make diabetes, heart disease (3x more likely), or stroke (2x more likely) more likely.
- Affects 1 in 3 Americans

Diagnostic Criteria:

- ***Waist Circumference***: Men ≥ 40 inches; Women ≥35 inches.
- ***Triglycerides***: ≥150 mg/dL.
- ***High-Density Lipoproteins***: Men <40 mg/dl; Women <50 mg/dl.
- ***Blood Pressure***:130 mm Hg (systole)/85 mm Hg (diastole).
- ***Fasting Blood Sugar***: ≥110 mg/dl.

DEPRESSION

WISCONSIN STUDY OF LINK BETWEEN MENTAL AND PHYSICAL HEALTH

- *Health Risks and Chronic Diseases*: Wisconsin adults with serious psychological distress (SPD) or depression are 2-3 times more likely to smoke and to be physically inactive, and 3-5 times more likely to have chronic diseases, including asthma and cardiovascular disease than those without.

Linking Mental and Physical Health: Results from the Wisconsin Behavioral Risk Factor Survey, April 2009.

WISCONSIN STUDY OF LINK BETWEEN MENTAL AND PHYSICAL HEALTH

- *Functional Limitations*: Adults with SPD or depression are 3-6 times more likely to have functional limitations, such as being unable to work, due to mental health and/or physical health problems, compared to those without.
- *Quality of Life*: Adults with SPD or depression are significantly more likely to have self-reported fair or poor health.

DEPRESSION IMPACTS THE BODY

- Depression is a risk factor for the development of cardiovascular disease and stroke, affect treatment of diabetes, and increase the risk of many other infections. In addition, mental health problems can exacerbate or produce physical problems.

Medscape, November 19, 2003. Retrieved from http://www.medscape.com/viewarticle/464742

SIGNS OF DEPRESSION

- Primary care physicians need to be on the lookout for patients who present regularly with lots of different illnesses or ailments, which may be a sign of depression.

Dr. Nakamura, deputy director of the National Institute of Mental Health in Baltimore, Maryland, at a a symposium held by the National Mental Health Association in New York City, 2003.

EXERCISE AS TREATMENT FOR DEPRESSION

- Exercise has been studied both as monotherapy and as an antidepressant adjunct.
- Trial results have generally been positive in both men and women across a wide age range and irrespective of setting or mode.
- Patients who continued to exercise had a lower risk of relapse over several months to years.

Freeman, MP, Fava, M, Lake, J, Trivedi, MH, Wisner, KL, & Mischoulon, D. (2010). Complementary and Alternative Medicine in Major Depressive Disorder: The American Psychiatric Association Task Force Report. *Journal of Clinical Psychiatry*, 71(6), 669–681.

EXERCISE AS TREATMENT FOR DEPRESSION

- The efficacy of exercise as a monotherapy for mild to moderate major depressive disorder:
  - After 12 weeks, the high-level exercise group showed a 47 percent reduction in symptoms, while the low-level exercise and control groups showed a 30 percent reduction in symptoms.

Linking Mental and Physical Health: Results from the Wisconsin Behavioral Risk Factor Survey, April 2009.

EXERCISE AS TREATMENT FOR DEPRESSION

- Exercise helps prevent and improve a number of health problems, including high blood pressure, diabetes and arthritis. Research on anxiety, depression and exercise shows that the psychological and physical benefits of exercise can also help reduce anxiety and improve mood.

http://www.mayoclinic.com/health/depression-and-exercise/MH00043

EXERCISE AFFECTS ON THE BODY

- Exercise probably helps ease depression in a number of ways, which may include:
  - Releasing feel-good brain chemicals that may ease depression (neurotransmitters and endorphins)
  - Reducing immune system chemicals that can worsen depression
  - Increasing body temperature, which may have calming effects

EXERCISE AFFECTS ON THE BODY

- Exercise has many psychological and emotional benefits too:
  - Gain confidence and feel better about appearance.
  - Take the mind off worries.
  - Get more social interaction.
  - Cope in a healthy way.

WHAT CAN YOU DO AS A PROVIDER?

REC RX

- Program developed in San Diego to write prescriptions for recreation and physical activity to gain patient buy-in of the importance of lifestyle strategies.
- Dr. Chris Searles piloted this program in a clinic in South Bay.
  - Encourages physicians to write physical activity prescriptions to patients in the form of aquatics, structure programs, or walking clubs. The program is designed to match health care providers to recreation providers by zip code, trains them with starter kits on program implementation and referrals, online forums, and other resources. Piloted this program with patients and providers in Chula Vista, a community that serves as a model for the project.
  - Chris discussed that a strategic way to get providers to focus their resources on a recreation program is to get backing from HHSA/Public Health Department. This worked successfully in Tulare County, another location where Recreation Rx has been implemented.
- Pilot programs for youth/families to tackle obesity issues.

http://www.nrpa.org/Success-Stories/Articles/2014/January/County-of-San-Diego-Breaks-Barriers-to-Recreation-for-Obese-Youth/

PROVIDER STRATEGIES

- Practice your own healthy lifestyle strategies – be a role model.
- Be informed and educated on effective lifestyle strategies.
- Be aware of the client/patient readiness for change and adapt strategies to that stage of readiness.
- Listen and learn from the expert - the client/patient, so they can guide you in the strategies that would be most effective and the strategies that they would be most likely to implement.
- Help the client / patient come up with concrete realistic measurable goals.
- Develop accountability strategies for the goals.
- Develop evaluation tools to measure success.
- Provide support.

THE END … OR THE BEGINNING?

- Any questions?
- Further contact
  - Healthy Adventures Foundation
  - 619-466-4386 ext 110
  - wendy@healthyadventuresfoundation.com