December 1, 2017 is World AIDS Day. The purpose of this article is to shed light on some of the challenges HIV-positive individuals face and how exercise can help.

In 2016 the World Health Organization (WHO) reported that nearly 37 million people worldwide were living with the human immunodeficiency virus (HIV). 1.2 million of those individuals were in the United States. Despite there being a small decrease in the number of new cases per year, there are still 50,000 new cases annually. A combination of medications known as antiretroviral therapy (ART) is used to stop the replication of the HIV virus. This treatment has increased the life expectancy of individuals with a recent HIV diagnosis from 10 years to nearly the same as those who do not have the virus. The use of ART has effectively decreased the rates of morbidity and mortality in patients who are infected with HIV. However, many negative health-related outcomes are associated with prolonged exposure to the medications, as well as further progression of the virus. Currently, the longer an individual receives ART, the higher their chances are of developing these negative health-related outcomes, such as metabolic abnormalities and cardiovascular disease (CVD).

Before the use of ART, the stereotypical HIV-positive patient was frail and sickly looking, a blatant contrast to the overweight or obese individual widely seen today. A common disorder that develops among many HIV-positive persons taking certain ART medications is Lipodystrophy syndrome; which is characterized by an abnormal distribution of adipose tissue (fat) in the body. Adipose tissue in the facial area, limbs and buttocks decreases while the upper torso and intra-abdominal areas see increases. These areas can be dangerous places to store fat, given their proximity to internal organs. Lipodystrophy syndrome is associated with metabolic syndrome, which is a combination of risk factors that increases the likelihood of developing CVD and type-2 diabetes. A recent study confirmed that nearly 20% of individuals who undergo ART suffer from metabolic syndrome. This is a staggering statistic as most of the risk factors can be prevented by participating in physical activity and exercise.

Cardiorespiratory and resistance training have been shown to have positive effects on individuals with HIV. Cardiorespiratory fitness programs in particular have produced lower body mass index scores, intra-abdominal fat and overall body fat percentage while also decreasing the metabolic syndrome risk factors. Resistance training programs have also shown positive effects on body composition, producing increases in muscle mass, muscle strength and a decrease in fat mass. These outcomes suggest that cardiorespiratory and resistance training could positively affect the bodily changes that occur in HIV-positive individuals who are using ART. Exercise recommendations for this group do not differ from those for the general population. Given their increased risk of developing negative health-related outcomes, this population should be proactive, engaging in exercise programs as soon as possible after diagnosis, and continuing throughout their lifetime.

November was Alzheimer’s Awareness Month: Lower Your Risk with the MIND Diet!

Q: Why do we have Alzheimer’s Awareness Month?
A: Alzheimer’s disease (AD) is a brain disease that causes memory loss, impaired thinking and reasoning, and personality changes. It is the sixth leading cause of death in the United States but there is still no cure. Alzheimer’s Awareness Month is a time to raise money for research, and a reminder of how AD impacts individuals, families and communities.

Q: How do I decrease my risk of developing AD?
A: There are many factors that influence your risk. While there are some that you cannot control, such as age or family history, there are many which you have the power to change including:
- Smoking status
- Stress levels
- Physical activity levels
- Social and mental engagement
- Diabetes management
- Proper nutrition

Q: What is the MIND Diet?
A: ‘MIND’ is an acronym for Mediterranean-DASH Intervention for Neurodegenerative Delay. It is a combination of the DASH (Dietary Approaches to Stop Hypertension) and Mediterranean diets. These two eating patterns have been scientifically proven to elicit positive health outcomes independent of each other. The MIND diet zeroes in on the food from each diet that specifically improves brain health. Closely following this diet can lower one’s risk of developing AD by as much as 50%. The recommendations are split into two groups: brain-healthy and unhealthy foods.

Brain Healthy Foods
- Whole grains
- Beans
- Dark leafy vegetables
- Other vegetables
- Berries (especially blueberries)
- Olive oil
- Red wine
- Nuts
- Fish
- Poultry

Unhealthy Foods
- Red meat
- Butter/margarine
- Cheese
- Pastries/sweets
- Fried foods

Q: If I can’t follow all of the recommendations, what are the best changes I can make to protect my brain?
A: Following just a few of the MIND Diet recommendations can still reduce your AD risk. If you can only make a few changes, here are the top tips to keep your mind sharp in the long term:

✓ Increase the amount of berries (especially blueberries) in your diet.
✓ Use olive oil more often than butter/coconut oil/canola oil.
✓ Switch from refined grains (e.g., white bread, pasta, rice) to whole grains such as whole-wheat bread, pasta and brown rice.