

## PHYSICAL ACTIVITY CORE

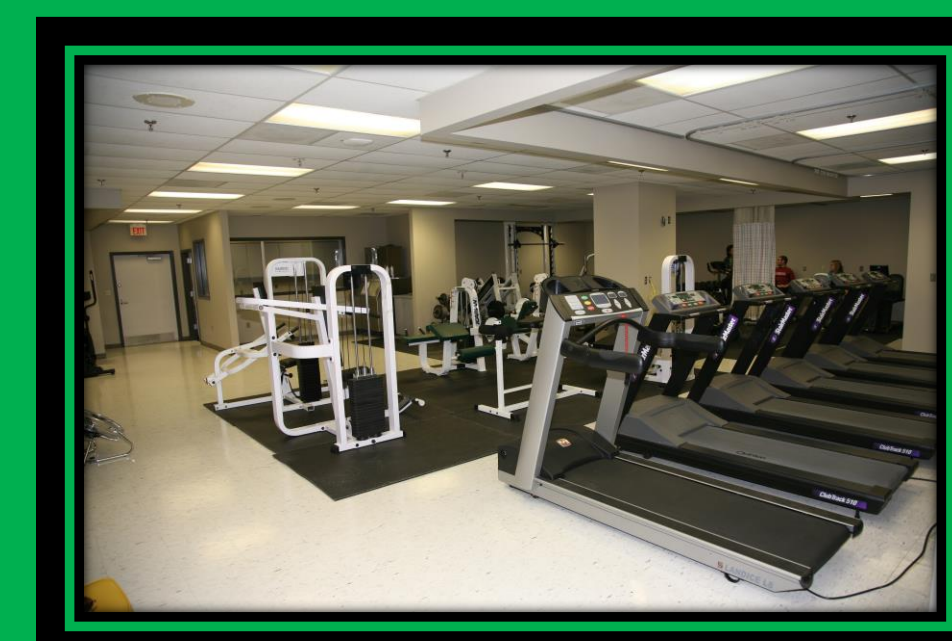
The Physical Activity Core (formerly the Nutrition/Human Studies Exercise Lab), is located in a 3000 sq. ft. exercise training facility housed on the first floor of the UAB Hospital–Highlands, and in the 700 sq. ft. exercise testing facility at the Susan Mott Webb Bldg. Equipment located in our Highlands location include 6 treadmills, 6 bike ergometers, a stair-master, an elliptical, 14 weight training stations designed to work all the large muscle groups of the body, and several thousand pounds of free weights. Our facility in the WEBB Building contains equipment consisting of 3 treadmills, 3 bike ergometers, 3 metabolic carts, strength testing equipment, EMG apparatus, CR 2000 for measuring arterial elasticity, and a library of various movement sensors such as heart rate monitors, accelerometers, and shoe insert force transducers.

We provide UAB investigators guidance concerning exercise testing and training and with research-ready resistance and aerobic exercise equipment to allow for the conduct of exercise studies among children, adults, obese persons, and many other populations, and provide an array of resources and trained personnel to allow them to accurately measure free-living PA among children, adults, obese persons, and other special needs populations.

Our team also provides assistance to University investigators with current grant preparation involving exercise, and consultative services to researchers whose aim is to explore the benefits of Physical Activity Research within their study population.

## SERVICES PROVIDED FOR FUNDED STUDIES

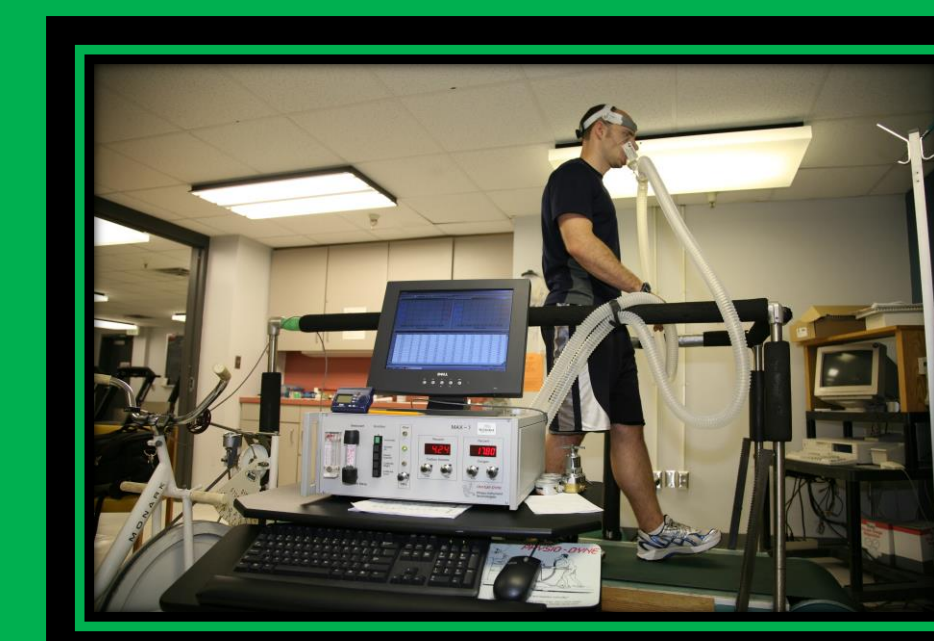
Service for funded studies (50% less for small pilot studies)	Fee
Aerobic fitness test while measuring heart rate and expired gases (VO2 max test)	\$80
Maximal exercise test while measuring heart rate	\$45
Submaximal ease/economy locomotion tests, (walking/stair climbing/biking)	\$75 \$40
Strength tests	\$50
Functional Testing	\$65
EMG measurement of ease during standing	\$50
EMG measurement of ease/economy during walking while carrying	\$60
Supervised resistance training or aerobic training (each session for one individual)	\$35
Supervised training for multiple individuals up to 4 in a group	\$50
Accelerometry for up to 4 days including data analysis (\$5 per day over 4 days)	\$50
Accelerometry for up to 4 days no data analysis (\$5 per day over 4 days)	\$25
Arterial Elasticity Testing	\$40



State-of-the-art training facility staffed with Exercise Physiologists and certified Personal Trainers



Leg and hip strength as well as stretch-shortening cycle ballistic leg press evaluations.



VO2 Max Test Aerobic fitness test while measuring heart rate and expired gases



We offer training programs designed and tailored to meet personal strength and weight-loss goals and we assist in the development of experimental protocols

## SELECTED PUBLICATIONS

**Our Exercise Laboratory has produced over 300 peer-reviewed articles. Below are some selected Publications:**

Carter SJ, Goldsby TU, Fisher G, Plaisance EP, Gower BA, Glasser SP, Hunter GR. Systolic blood pressure response after high-intensity interval exercise is independently related to decreased small arterial elasticity in normotensive African American women. *Appl Physiol Nutr Metab.* 2016 May;41(5):484-90.

Hunter GR, Fisher G, Neumeier WH, Carter SJ, Plaisance EP. Exercise Training and Energy Expenditure following Weight Loss. *Med Sci Sports Exerc.* 2015 Sep;47(9):1950-7.

Hunter GR, Neumeier WH, Bickel CS, McCarthy JP, Fisher G, Chandler-Laney PC, Glasser SP. Arterial elasticity, strength, fatigue, and endurance in older women. *Biomed Res Int.* 2014;2014:501754.

Hunter GR, Plaisance EP, Fisher G. Weight loss and bone mineral density. *Curr Opin Endocrinol Diabetes Obes.* 2014 Oct;21(5):358-62.

Fisher G, McCarthy JP, Zuckerman PA, Bryan DR, Bickel CS, Hunter GR. Frequency of combined resistance and aerobic training in older women. *J Strength Cond Res.* 2013 Jul;27(7):1868-76.

**UAB Highlands**

**Webb Building**



## Sources of Research Support

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