

Nutrition & Food Studies  
College of Health &  
Human Services

## Human Nutrition Assessment Laboratory



Peterson Family Health Sciences  
Hall  
4408 Patriot Circle Room 1500A  
Fairfax, Virginia  
22030

[chhs.gmu.edu/nfs/](http://chhs.gmu.edu/nfs/)

## About the Lab

The Human Nutrition Assessment Lab was established in 2014 with the objective to create a teaching environment and to serve as a resource for clinical research investigations dedicated to human nutrition research.

Space is available for obtaining ethical consent and for conducting surveys and counselling sessions.

The Lab is located on the George Mason University Fairfax Campus.

*The Research Lab is available for use by both George Mason University professors and external researchers. Find out about joining the team!*

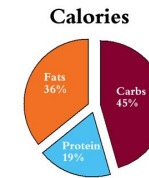
### Expertise of Current Researchers

- Anthropometry
- Body composition and bone analysis
- Indirect Calorimetry
- Dietary intake collection & analysis
- Survey and questionnaire administration and analysis.
- Childhood and adult obesity
- Randomized clinical trials
- Food composition and nutrient analysis

## Equipment Available for Use

### Dietary Analysis Software

Nutritionist Pro diet analysis software is used to assess energy, macro and micro-nutrient intake to compare to standards and nutrient goals. The program includes an extensive database of foods and reports which can be provided to clients. Menu analysis is available.



### QUARK –RMR Metabolic Cart

The metabolic cart uses indirect calorimetry, the gold standard for assessing resting energy expenditure. This technology can identify energy metabolism and substrate utilization for the evaluation of response to changes in body composition, dietary and pharmaceutical interventions.



### HOLOGIC Horizon Densitometer



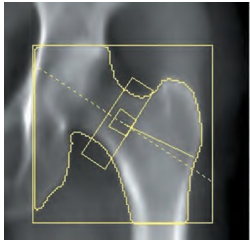
Dual energy x-ray absorptiometry (DXA) can be used to assess bone density and body composition (fat and muscle mass) in adults &

children including the vertebral assessment of fractures and abdominal aortic calcification. This newest model allows sensitive detection combined with rapid, low radiation capabilities.

## Research Applications

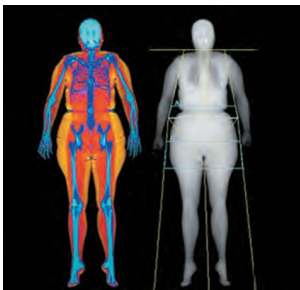
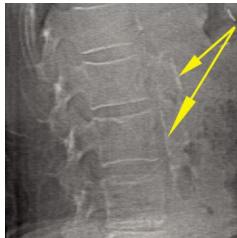


- Examine the effects of diet and nutritional interventions on body composition and resting metabolic rate.



- Assess bone density and fracture risk in at-risk populations.

- Determine abdominal aortic calcification to assess risk of heart disease and stroke.



- Obtain accurate assessments of lean and fat mass as well as, visceral fat mass in children and adults.

- Assess growth in infants and children.



## RESEARCHER Portfolio Packages

To facilitate measurements by researchers, portfolios have been constructed. Additional packages are available.

- **Body Composition**  
Whole Body Fat, Lean Mass
- **Resting Metabolic Rate (Energy Burned at Rest)**  
Resting Energy Expenditure and substrate utilization.
- **Nutrition Analysis**  
Food and nutrient analyses of diet records
- **Bone Mass**  
Whole body, forearm, spine, hip bone mineral content and density.

## Directions to the lab

Our address is:

Peterson Family Health Sciences Building  
4408 Patriot Circle Room 1500A  
Fairfax, Virginia  
22030

For directions to our location on the George Mason University's Fairfax Campus, see <http://www.gmu.edu/resources/welcome/Directions-to-GMU.html>.

**Phone:** (703) 993-9709

**Email:** Nutritionlab@gmu.edu

**Website:** chhs.gmu.edu/nfs