

**MODULE TITLE:**

Fitness over Fatness – Sedentary behaviours
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**RESPONSIBLE FOR THE MODULE:**

NAME	Manos Georgiadis	
POSITION	Senior Lecturer	
SECTOR	Sport and Exercise Psychology	
OFFICE	Waterfront Building – IP4 1QJ – Suffolk, UK	
TEL. / E-MAIL	+44 1473338853	<a href="mailto:m.georgiadis@uos.ac.uk">m.georgiadis@uos.ac.uk</a>
CO-INSTRUCTORS	N/A	

**HOURS** (*per week*):

N/A
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**LANGUAGE OF TEACHING:**

GREEK [ ]

ENGLISH [✓]

**AIM OF THE MODULE** (*content and acquired skills*)

The Module aims to educate students around the relative new paradigm shift from fatness to fitness. In other words, how practices for a healthier society need to support exercise behaviour irrelevant of the physique or the size of the individuals. This is followed by the physiological explanation of this paradigm shift.

Complimentary to the above discussion students will be exploring the negative effects of sedentary behaviours on health indices. Identifying the relative importance of the type of sedentary behaviours as well as the value of the exercise behaviour towards minimising the deleterious effects of sedentary behaviours on human health will be also discussed and analysed.

**MODULE CONTENTS** (*outline – titles of lectures*)

1. Analysis of the role fitness has over fatness for human health
2. Explanation of the role myokines play for improving human health
3. Interleukins during exercise: An anti-inflammatory weapon against morbidity and mortality
4. How white fat can turn into brown fat during exercise
5. Explanation of the deleterious effects of sedentary behaviours
6. How many hours do we afford to be sedentary without damaging our health?
7. The role of fitness over sedentary behaviours

**TEACHING METHOD** (*lectures – labs – practice etc*)

Lectures and seminar questions on practical application
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### LEARNING OUTCOMES

Upon the completion of this module the student will be able to:

1. Realise how and why fitness can play a major role against morbidity and mortality;
2. Conceptualise the central role of regular human movement and physical activity towards a better quality of life;
3. Realise how much exercise is needed to retain human health;
4. Realise how sedentary behaviours influence human health;
5. Conceptualise the needed changes to reduce the effects of sedentatiness on human health.
6. Design a particular program able to enhance fitness and reduce the negative effects of sedentary behaviours.

### LEARNING OUTCOMES - CONTINUED

<i>Learning Outcomes</i>	<i>Educational Activities</i>	<i>Assessment</i>	<i>Students Work Load (hours)</i>
Realise how and why fitness can play a major role against morbidity and mortality;	Lectures, slides, research papers and discussion over practical scripts	Intermediate control tests and assignments	
Conceptualise the central role of regular human movement and physical activity towards a better quality of life;	Lectures, slides, research papers and discussion over practical scripts	Intermediate control tests and assignments	
Realise how much exercise is needed to retain human health;	Lectures, slides, research papers and discussion over practical scripts	Intermediate control tests and assignments	
Realise how sedentary behaviours influence human health;	Lectures, slides, research papers and discussion over practical scripts	Intermediate control tests and assignments	
Conceptualise the needed changes to reduce the effects of sedentatiness on human health.	Lectures, slides, research papers and discussion over practical scripts	Intermediate control tests and assignments	
Design an exercise program able to enhance fitness and reduce the negative effects of sedentary behaviours.	Lectures, slides, research papers and discussion over practical scripts	Intermediate control tests and assignments	
		<b>TOTAL</b>	

### OBLIGATORY & SUGGESTED BIBLIOGRAPHY:

1. Ekelund, U., Steene-Johannessen, J., Brown, W. J., Fagerland, M. W., Owen, N., Powell, K. E., ... & Lancet Sedentary Behaviour Working Group. (2016). Does physical



- activity attenuate, or even eliminate, the detrimental association of sitting time with mortality? A harmonised meta-analysis of data from more than 1 million men and women. *The Lancet*, 388(10051), 1302-1310.
2. Flegal, K. M., Kit, B. K., Orpana, H., & Graubard, G. I. (2013). Association of all-cause mortality with overweight and obesity using standard body mass index categories. *JAMA: The Journal of the American Medical Association*, 309, 71–82.
  3. Healy, G. N., Dunstan, D. W., Salmon, J., Cerin, E., Shaw, J. E., Zimmet, P. Z., & Owen, N. (2008). Breaks in sedentary time: beneficial associations with metabolic risk. *Diabetes care*.
  4. Pedersen, B. K. (2017). Anti-inflammatory effects of exercise: role in diabetes and cardiovascular disease. *European journal of clinical investigation*, 47(8), 600-611.
  5. Vallance, J. K., Gardiner, P. A., Lynch, B. M., D’Silva, A., Boyle, T., Taylor, L. M., ... & Owen, N. (2018). Evaluating the Evidence on Sitting, Smoking, and Health: Is Sitting Really the New Smoking?. *American journal of public health*, (0), e1-e5.
  6. Wilmot, E. G., Edwardson, C. L., Achana, F. A., Davies, M. J., Gorely, T., Gray, L. J., ... & Biddle, S. J. (2012). Sedentary time in adults and the association with diabetes, cardiovascular disease and death: systematic review and meta-analysis.