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**Welcome to the Master's Open Day
Human Movement Sciences**

Go the extra mile

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Content

- What is HMS about?
- Why HMS in Maastricht?
- Main themes of HMS @UM
- Course outline & programme details
- What the future might bring
- Admission
- Meet Lieke van Laarhoven!



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What is HMS about?

The ability to move is a fundamental aspect of human life and is essential for the (physical and mental) functioning of each individual

HMS aims to understand and optimize human movement in relation to every day life, health and disease, aging and (sports) performance

Systematic and scientific in-depth study of human movement

Application of knowledge to movement related scientific and societal issues.



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What is HMS about?

'Move More and Sit Less': These Are the New Physical Activity Guidelines for Americans

By Yaseemin Sapikoglu, Staff Writer | November 12, 2018 03:15pm ET

American Heart Association's Scientific Sessions

November 2018



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What is HMS about?

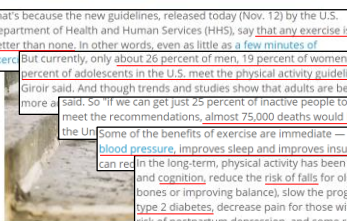
'Move More and Sit Less': These Are the New Physical Activity Guidelines for Americans

By Yaseemin Sapikoglu, Staff Writer | November 12, 2018 03:15pm ET

That's because the new guidelines, released today (Nov. 12) by the U.S. Department of Health and Human Services (HHS), say that any exercise is better than none. In other words, even as little as a few minutes of exercise. But currently, only about 26 percent of men, 19 percent of women and 20 percent of adolescents in the U.S. meet the physical activity guidelines.

Giroir said. And though trends and studies show that adults are becoming more active, he said, "If we can get just 25 percent of inactive people to be active and meet the recommendations, almost 75,000 deaths would be prevented in the U.S."

Some of the benefits of exercise are immediate — it reduces anxiety and blood pressure, improves sleep and improves insulin sensitivity (which can reduce the long-term risk of type 2 diabetes). Physical activity has been shown to improve brain health and cognition, reduce the risk of falls for older adults (by strengthening bones or improving balance), slow the progression of hypertension and type 2 diabetes, decrease pain for those with osteoarthritis, reduce the risk of postpartum depression, and some research has shown that it may reduce the risk of developing dementia.





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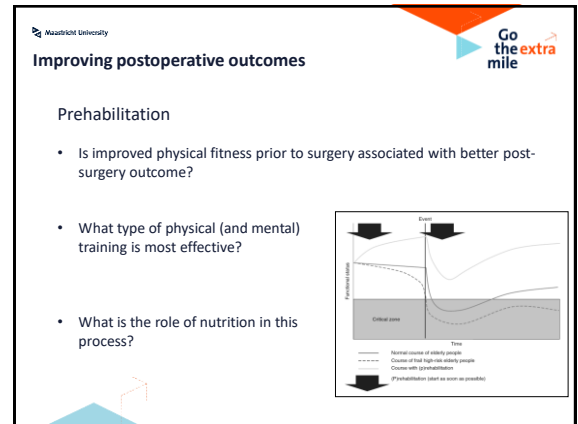
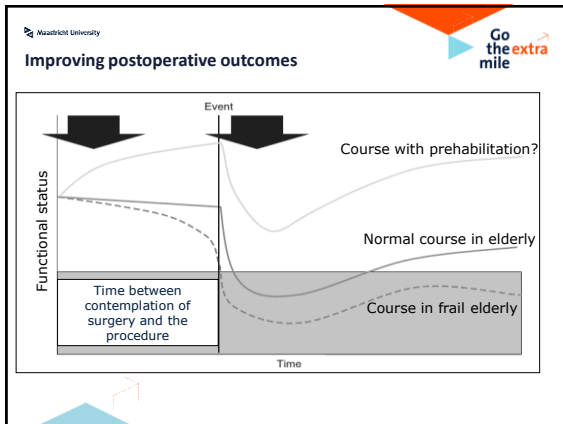
Fall risk in elderly

Elderly fall more frequently!

Do they stumble more often or are they less able to control incident stumbles?

Would resistance training be beneficial?



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Sitting time is an important health risk

A sedentary lifestyle has been associated with various chronic diseases!

Is exercise necessary?
Can daily non-exercise activity do the job?

How can we assess daily activity?
What is the dose-response relation?

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Sports performance

From BBC.com
Everyone loves a fairytale, but how many do you know that involve beetroot shots and ice chambers reaching -135 °C?

Leicester City: The science behind their Premier League title
By Nathan Aspinall
BBC Sport
© 6 May 2016 - Football

"Leicester are not alone in using cutting-edge technology in the Premier League, of course, but using beetroot shots as a performance enhancer and ice chambers to improve recovery do mark them out from the crowd."

HOW CAN EXERCISE AND NUTRITION BE BEST COMBINED TO OPTIMIZE SPORTS PERFORMANCE?

Leicester players wear GPS vests in training to record their every movement

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Why HMS in Maastricht?

- Programme close to scientific research performed at UM
- Internationally renowned scientists
- State-of-the-art research facilities



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Physical activity and wearables

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"Beet"-ing your competitors

Mark Cavendish @MarkCavendish

Doesn't matter how often it happens, taking a pee the day after drinking beetroot juice will always freak you out!!
#pissingrainbows

10:27 PM - 13 Jan 2012

248 27

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State-of-the-art research facilities






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State-of-the-art research facilities







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Why HMS in Maastricht?

- Relevant societal themes
- Flexibility, pursue your own interests
- Part-time option
- Two work field-related specialisations

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Main objectives of HMS @UM

Prepare students for a **research-oriented future** in e.g. academia, higher education, hospitals, rehabilitation centres, life style centres, biomedical companies, sports organisations, sports nutrition companies, etc.

Developing an **evidence-based mindset** to enable students to design, execute, evaluate, interpret, apply, and communicate academic knowledge in their respective field of study




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Students choose 1 of the specialisations!!!

Health & Rehabilitation

Sports & Nutrition

Specialisation Health & Rehabilitation


Human movement as a **means** to improve health



Human movement as a **goal** in rehabilitation

Specialisation Sports & Nutrition

Exercise training and nutrition in relation to sports performance



Evidence-based advice on training- and nutritional programmes

(Specialisation Physiotherapy)

Specific master HMS track for BSc students Physiotherapy from SOMT University of Physiotherapy:
Final closure of a four-year academic physiotherapy continuum

Focus on diagnosing, treating, and monitoring patients with conditions and co-morbidities that warrant physiotherapy treatment in a mono- or multi-disciplinary context



Performing and understanding research, and applying evidence-based practice in the professional physiotherapy setting, with the main aim of developing, maintaining, and/or restoring body movement and function

Programme outline (full-time)

	Specialisation Health & Rehabilitation		Specialisation Sports & Nutrition	
Sept/Oct 2 x 6 ECTS	Imaging Muscle Health	Physical Activity and Health	Nutrition to fuel sports performance	Sports supplements and ergogenic aids
Nov/Dec 2 x 6 ECTS	Analysis and restoration of human locomotion	Movement disorders and rehabilitation	Nutrition to support training adaptation	Sports and nutrition: putting science into practice
January 6 ECTS	Designing Intervention Research			
Feb/March 6 ECTS	Reviews			
Feb/June 24 ECTS	Placement and Thesis			

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Part-time programme

- First year: Friday courses
- Second year: Tuesday courses
- All combined with full-time students
- In principle, all teaching on one day
- Part-time = half time (20 hours/wk)

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Teaching methods

- English throughout
- Problem-based learning
- Interactive lectures and workshops
- Practicals in small groups
- Project work
- Hands-on experience (real-life setting)
- Academic skills training



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Fact or fashion?



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Fact or fashion?



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Academic skills

ARGUMENT

A good argument is supported with **reasoning and evidence**.

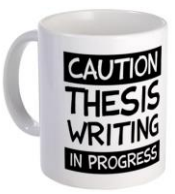
- Searching literature
- Critical reading
- Communicating (writing, presenting)
- Collaborating
- Research methodology
- Data quality
- Data reporting

To apply evidence-based practice in your professional setting

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Placement and M.Sc. thesis

- Research placement
- 16 weeks full-time equivalent
 - Individual choice
 - Gain experience in design, data collection and data analysis
 - Standards for good scientific practice
 - Basic or applied
 - Individual M.Sc. thesis



Placement and M.Sc. thesis


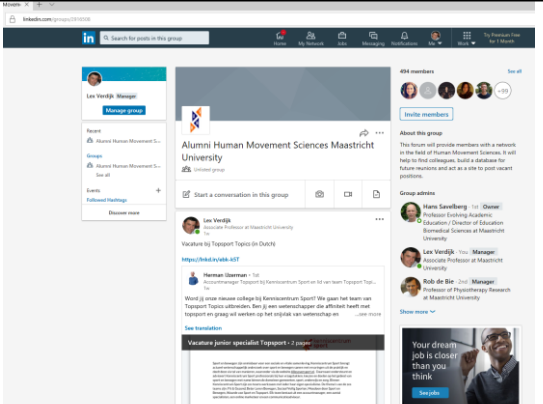
- Research group at UM/MUMC+ or other research institute
- Rehabilitation: Adelante, CIRO, Revant, hospitals
- Sports: NOC*NSF, AIS, AJAX, field labs (e.g. Papendal), KNVB, PSV, Roda JC, SportMax, sports nutrition research institutes (e.g. GSSI), TerraSports, TVM, TEIC, et cetera
- Healthy Life Style: TopSupport, COEUR
- Bio-Medical Engineering: Phillips Research, TNO
- National or international (UK, Australia/NZ, Canada, US, Norway, et cetera)

Internationalisation and diversity

Class of 2019

- ~80 students
- 65% university (*Biomedical Sciences, Health Sciences, Biology, Nutrition and Health, Exercise Science, Medicine*)
- 35% applied sciences (*Physical Therapy, Occupational Therapy, Biometry, Sport & Health, Sports Sciences, Physical Education, Nutrition/dietetics*)
- 30% non-Dutch (*Belgium, Cyprus, Germany, Greece, Ireland, Italy, Spain, UK, US*)
- 20% part-time students

What the future might bring...

Career perspectives

Fysiotherapeut of bewegingswetenschapper

Fulltime bij GGD 3 Erasmus MC in Rotterdam

Wetlicht ook interessant

- **Nationaal Wetenschappelijk Instituut voor Sportwetenschappen en Sportwetenschappen**
- **Talentontwikkeling Werken in de Sport**

Career perspectives

Development Specialist (Sports) Nutrition

Job description

As a nutrition expert, you bridge disciplines, co-create the nutritional strategy, and apply healthy solutions in our products to strengthen and safeguard the nutritional credibility of FrieslandCampina.

Share vacancy

- Share on Twitter
- Share on Facebook
- Share on LinkedIn
- E-mail deze vacature

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Career perspectives

kenniscentrum sport

Sport en bewegen zijn onmisbaar voor een sociale en vitale samenleving. Kenniscentrum Sport brengt actueel wetenschappelijk onderzoek over sport en bewegen samen met ervaringen uit de praktijk en deelt deze via tal van manieren, waaronder via de website dtopsport.nl. Daarnaast ondersteunt en adviseert Kenniscentrum Sport professionals bij hun vraagstukken, leunen en doelen op het gebied van sport en bewegen met name binnen de domeinen gemeenten, sport, onderwijs en zorg. Binnen Kenniscentrum Sport zijn zes teams werkzaam met ieder haar eigen specialisme. De thema's van de zes teams zijn Fit & Gezond, Beter Leren Bewegen, Sociaal Veilig Sporten, Meedoen door Sport en Bewegen, Waarde van Sport en Topsport. Elk team bestaat uit een accountmanager, een aantal specialisten, een online marketeer en een communicatieadviseur.

Voor de uitbreiding van het Topsport Topics team is Kenniscentrum Sport op zoek naar een:

Junior Specialist Topsport
30 uur per week
(standaards VZ Amsterdam)

Team Topsport Topics
Topsport Topics is het team dat binnen Kenniscentrum Sport invulling geeft aan het thema Topsport. In nauwe samenwerking met NOC*NSF, Bewegingswetenschappen Amsterdam en Bewegingswetenschappen Groningen levert Topsport Topics een bijdrage aan de ambitie van NOC*NSF en het Ministerie van VWS om structureel bij de tien beste sportlanden van de wereld te horen. Dit doen we door de nieuwste sportwetenschappelijke inzichten op een toegankelijke en kritische wijze te verspreiden onder het Nederlands topsportkader. Dit gebeurt onder meer via publicaties op de website dtopsport.nl en via diverse sociale media.

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Career perspectives

Researcher in movement science

20th September 2019

NTNU
Norwegian University of Science and Technology

The Department of Neuromedicine and Movement Science has a vacancy for a

Researcher in movement science

The application deadline has passed

See advertisement

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Career perspectives

- Programme coordinator M.Sc. Human Movement Sciences
- Performance coach at Boels Dolmans Proccyclingteam
- Teacher Physical Therapy at Fontys Hogeschool
- Human Movement Scientist at SMC SportMáx (Máxima Medisch Centrum)
- Sport Scientist at PSV Eindhoven
- Research Assistant at Revant Rehabilitation
- PhD Candidate at Newman University (UK)
- PhD Candidate at Maastricht University
- Clinical Studies Specialist at Medtronic Bakken Research Center
- Researcher Orthopaedics at ViaSana clinic
- Co-founder / Co-owner / CEO at Elite Personal Fitness
- Physical Therapist
- Product Development Engineer at COVARTIM
- Development Specialist Sports Nutrition at FrieslandCampina

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Admissions

Relevant domains university (a.o.)	Relevant domains applied sciences (a.o.)
Biology	Biometry
Biomedical Sciences	Cesar Therapy
Biochemistry	Dietetics
Biomedical Technology	Medical Imaging and Radiation
Health Sciences	Mensendieck Therapy
Life Sciences	Occupational Therapy (Ergotherapie)
Medicine	Physical Education (Lichamelijke opvoeding)
Movement Sciences	Physiotherapy
Nutrition and Health	Podotherapy
Sports and Exercise Sciences	Psychomotor Therapy (Bewegingsagogie)
University College (depending courses)	Sports and Exercise Sciences
	Sport and Movement
	Sport and Movement Education
	Sport, Health and Management

Visit the Admissions stand for more information !!

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Application deadlines to start in September 2019

- **Students who apply for a UM-wide scholarship** up to and including 1 February 2020
- **Non-EU/non-EEA-students** up to and including 1 May 2020
- **EU/EEA-students** up to and including 1 June 2020

Admission-related questions?
Please visit the stand from the Board of Admission at the information market for a personal talk with our staff members



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Hi, my name is Lieke from the Netherlands, Human Movement Sciences master's student

Follow me on Instagram and find out more about my study experiences and my life in Maastricht!

extramile_lieke

"After I graduate I would like to research the relationship between nutrition and performance. A dream job would be to become involved in the national ladies soccer team."

#Read the full story

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Questions?

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Quote from previous student:



*"I would like to thank all the organisers of this master,
I think that the quality of this course was very high and
I think I acquired very important skills thanks to this program.
Keep up the good work for the future, I will recommend it
if someone will ask me about it"*

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**Good luck with your study selection
and we hope to see you in Maastricht!**

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Lex Verdijk
Programme coordinator
Focus Sports & Nutrition



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