



Newsletter

September 2008

Hello from the Hertfordshire Cohort Study Team.

Welcome to our first ever Newsletter! Here you will find information about how we have been using the data you provide, some recent findings from the study, and some of our plans for the future. We hope you enjoy the read!



We knee'd you for a good old knees up!

Osteoarthritis (OA) is the most common type of arthritis, it can affect your knees, hips, hands, feet and spine. It is most common among people over the age of 65.

Being overweight is one of the strongest risk factors for OA in the knee. However, few studies have looked at how body weight throughout life may influence the progress of OA. Studying this potential relationship is of great importance, as obesity is becoming a serious public health problem worldwide.

Knee alignment is also thought to play a role in OA. People with knock knees or bow legs can be more at risk of developing OA. The usual way of measuring knee alignment is by x-ray, it can also be measured whilst walking around in a laboratory wired up to lots of machines that study the movement electronically. This is only possible with a few people and is fairly artificial. To overcome this problem, a fantastic new measurement system called a 'Smart Tog' is currently undergoing development by the University of Southampton. The Smart Tog will be

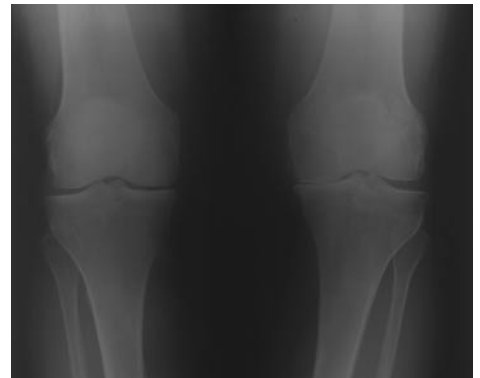
similar to a tubi-grip that is worn over the knee. It will contain lots of sensors, and using wireless technology, will be able to send data to computers for processing. This will provide information on muscle activity, movement and forces during the performance of everyday tasks such as walking, and going up and down stairs.

Some of you may remember participating in a research project a few years back involving knee x-rays, lifestyle and general health questionnaires. We now plan to carry out repeat knee x-rays and questionnaires in this group to look at changes in relation to the development or worsening of OA. If you are asked to participate you will receive an x-ray appointment at Hertford County Hospital and a questionnaire in the post. This will ask about current knee pain and activity levels, in addition to joint surgery, joint injury, hip and hand OA and body weight.

From this group, a small number of you who have knee pain and knee OA on x-ray, will be asked if you wish to participate in the Smart Tog study. This will involve wearing the Smart Tog for a 10 minute period each day for 3 consecutive days whilst performing a brisk walk on a flat surface and walking up or down stairs.

This exciting new technology will allow knee alignment whilst moving to be studied very closely and may shed new light on how risk factors, such as how body weight and knee alignment work together in the OA process.

The aim of this study is to assess if body weight throughout life and certain forms of knee alignment influence who is likely to get knee OA as we get older. By finding out more about the factors that influence the progression of OA we may be able to identify individuals who would benefit from early intervention and treatment, therefore reducing the pain, suffering and the costs of OA in the UK.



Getting a wider picture of effects on muscle strength

Reduced muscle strength and physical function are major problems among older people but little is known about social differences in these problems. For example, does muscle strength differ according to whether or not people have access to a car, whether they own or rent their home, their level of education or their social class? We are currently using

the information and measurements that you provided us with to explore these questions and the results are very exciting.

Among the 1,684 men and 1,541 women who took part in the Hertfordshire Cohort Study, 6.4% of men and 17.7% of women had no car and 19.3% of men and 23.1% of women did not own or mortgage their home.

You may recall having your grip strength measured at clinic? Well, we have

analysed those data and it is very clear that men and women who are materially disadvantaged in so far as they do not have access to a car, or do not own or mortgage their home, have much lower grip strength than people who have access to a car or who own or mortgage their home.

Similar results were found for level of self-reported physical function at the time of the nurse home interview.

How happy are you?

Getting older is a time of change – we may be a bit less agile physically and mentally than we were in our 20s and more likely to have health problems. We want to learn what influences people's sense of happiness and satisfaction with life as they get older. Why is it that some people cope easily with the changes of ageing while others feel less positive about getting older?

Over the next few months, we shall be starting a new study on well-being. With your help, we have already collected a great deal of important information about your health and your physical function. This

has given us new insights into the causes of common chronic diseases. Now we hope you can help us again.

We are planning to send you a self-completion questionnaire on well-being. The questionnaire will include questions about happiness, life satisfaction, your neighbourhood, household circumstances, support from friends and family, and daily activities. It will also contain some questions on how you view yourself. In addition, we'd like a brief update on your physical health.

The information you give us in this questionnaire will allow us to discover what determines how happy people feel

as they get older. We shall also be able to learn whether happiness has an effect on people's health and how well they function physically.

We'd also like to hear your views on what has affected your well-being and physical health throughout your life. Over the next year or so, we shall be inviting 30 people to take part in a special in-depth interview with a researcher in their own home. This time, rather than us asking all the questions, we want to hear what you think are the childhood or adult influences on how well you have felt in later life.

We look forward to letting you know what we discover in a later newsletter.



HCS gets connected!

We are proud to announce the launch of our new website to the world wide web.

The web address is <http://www.mrc.soton.ac.uk/herts>. Here you will be able to find out more about what we do, what we have discovered, and what our plans are for the future. The site will be regularly updated so keep popping back for the latest news!

For confidentiality no names or identifiers about you will be published on the website. If you have any suggestions for the site, or perhaps some interesting pictures of Hertfordshire you would like to share, please get in contact.

Thank you for your muscle!

Ageing is associated with numerous changes in the body that affect health. Sarcopenia, the loss of muscle mass and strength with age is one of the most significant given it is associated with disability, poor health, falls and fractures.

Over the last 10 months we have been

studying the relationship between birth weight and muscle mass and strength. We have invited healthy male volunteers from Hertfordshire to participate in this study, taking place in Southampton General Hospital. We have had a good response from you to what has been a fun day out!

So far x have taken part, x(%) have had a muscle biopsy, x(%) found the procedure painless and x(%) would not mind having the procedure again!

We anticipate that results from this study will greatly improve our understanding of how events in early life affect the strength and size of muscle in later life and also how we can help future generations to maintain their health and independence.

Please contact Dr Harnish Patel for more information

What is common?

Men

Most common name: John

On average, men in the study weighed 7.7 lbs (3.5 kg) at birth, and 22.6 lbs (10.3 kg) at one year of age.

The average height of the men that came to our clinics was 1.74 m tall (5 ft 9 in), and the average weight was 82.4 kg (13 stone).

14% of men had broken one or more bones since the age of 45, and 15% of men had experienced a fall in the year before we saw them in clinic.

Women

Most common name: Margaret

On average, the women in our study weighed 7.4 lbs (3.4 kg) at birth and 21.4 lbs (9.7 kg) at one year of age.

The women that came to our clinics were, on average, 1.61 m tall (5 ft 3 in), and weighed 71.4 kg (11 stone 3 lbs).

22% of women had broken one or more bones since the age of 45, and 23% of women had experienced a fall in the year preceding the clinic.

see our website for more information

Cause for celebration!

The study is now in its 20th year and still going strong! We would like to say a huge thank you to everyone who has been involved over the years. A great deal of interesting and important research has come out of this study in its time, which has only been made possible by your participation. We hope you are willing to continue to be a part of the team for many years into the future.

If you have any questions or comments we would love to hear from you. Also, if you are moving house or changing your telephone number, please let us know so we can keep in touch with you.

MRC Epidemiology Resource Centre
University of Southampton
Southampton General Hospital
Southampton SO16 6YD

Email: hcs@mrc.soton.ac.uk
www.mrc.soton.ac.uk/herts

Tel: 023 8077 7624