University of Southampton School of Medicine

MRC Medical Research Council

HCS Newsletter

Winter 2010

Hello from the Hertfordshire Cohort Study Team

Welcome to the latest edition of the HCS Newsletter. In this edition you can read about the results from recent questionnaires, clinics and interviews, the news of our name change in Southampton, as well as news about an exciting new osteoarthritis study beginning early next year.

We hope your 2010 has been a good one, and we look forward to seeing some of you again in 2011.

Joint research across Europe

Osteoarthritis is a condition caused by progressive wear and tear of joint cartilage and the neighbouring bone. It most often affects the hands, spine, hips and knees. It can cause pain, stiffness and swelling of joints and distinctive changes on x-rays. Osteoarthritis does not just affect people in the UK, it is seen throughout Europe and the rest of the world. It is more common in later life and around 80% of people over 75 years show some of the x-ray changes in one joint or another.

Having osteoarthritis can significantly change a person's lifestyle. It can reduce their ability to get around and carry out normal daily tasks, which can affect their quality of life. It is not known at present however exactly what determines how having osteoarthritis will affect an individual. Given that it is such a common and widespread problem it is felt to be extremely important to look into this.

In order to do so, researchers from Italy, Spain, Holland, Germany, Sweden and here in the United Kingdom have got together to design a study which will be carried out across all six countries! The Hertfordshire Cohort Study has been invited to participate in this exciting project. We are hoping to see "Herts Babies" who have previously helped us with osteoarthritis research and who had x-rays of their knees performed several years ago now. The visit would consist of a questionnaire, physical function tests such as grip strength, which you may have completed before, and some further x-rays at a local clinic.

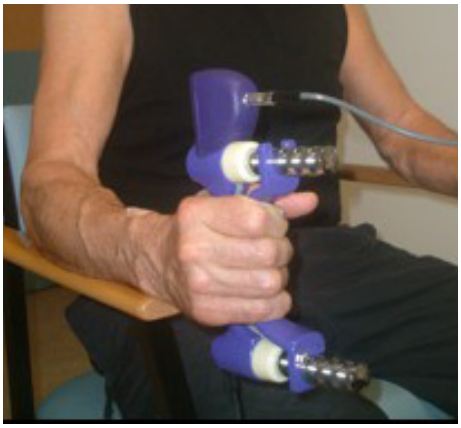
By comparing the two sets of x-rays we will gain valuable information on changes that occur in joints over time. We hope that this project will allow us to get a better understanding of how osteoarthritis affects individual people and ways of predicting its effects. We would plan to begin the study early next year so look out for a letter from us soon!

Thank you!

You may remember being sent a Lifestyle Questionnaire a few years back. A huge number of you (2299!) kindly filled this out and returned it to us, which is greatly appreciated. The information you provided is extremely valuable to us, it enables us to see how everyone is getting on a few years on from the clinic visits. Results from analyses using data collected in this questionnaire will be presented in the scientific literature and at scientific meetings, as well as reported on our website. For now, here are some statistics from one section of the questionnaire.

44% of people had suffered some pain for most of a month in the last year, with knees being the most common source of pain, followed by lower back pain. Of those who reported having had pain, 20% had tried an alternative therapy. Of those trying alternative therapies, acupuncture was the most common (55%), followed by chiropractor treatment (48%) then homoeopathy (16%), then aromatherapy (9%).

Mighty muscle: the Hertfordshire Sarcopenia Study 3 years on



One hundred and five male volunteers participated in this study of muscle which involved a muscle biopsy. All the men attended the Wellcome Trust Clinical Research Facility in Southampton for a day of intensive tests including an overnight stay – for many it was a good couple of days out! A further 26 even returned for further tests later in 2009 which involved detailed assessment of leg muscle strength.

Initial analysis of the results showed that there was a tendency for a lower muscle fibre score in the men with lower birth weight. As this was seen in a relatively small group of men, it is hard to make broad generalisations but the results go some way to explaining why those with lower birthweight have, in general, reduced muscle strength. Further analyses of the muscle samples are ongoing and we are going to publish some of these results in scientific journals – watch this space!

Once again, we extend a big thank you to all those men who participated. Please feel free to drop us a line if you have any questions about the study.

www.mrc.soton.ac.uk/herts

Don't forget to visit the Hertfordshire Cohort Study website for news and updates on the study.

How's your wellbeing? First results from the HCS Wellbeing Survey

Health is a life-long process, influenced by our genes and by experiences before birth, in infancy, during childhood and adulthood. In the same way, how happy or content people feel in later life is likely to be caused by influences that operate at different stages of the life course. For example, developing chronic illnesses or disabilities later in life can have a detrimental effect on wellbeing, but people's tendencies to become distressed may also be affected by the environment in which they grew up, by personality traits established in childhood, and by poor growth before birth. In 2009 we started a study to investigate the importance of influences from different stages of life on wellbeing in older people.

Over 1400 of you completed our postal questionnaire in which we measured levels of wellbeing, assessed personality, and collected information on current circumstances that might affect wellbeing, such as illness, disability, living environment and income.

We found that levels of wellbeing among the people who completed the questionnaire varied widely. The strongest influence on level of wellbeing was the personality trait emotional stability or neuroticism. On average, people who were less emotionally stable (or higher in neuroticism) had a lower level of wellbeing. Other personality traits too affected wellbeing: people who had higher levels of the personality traits conscientiousness, extraversion, agreeableness and openness to experience tended to be happier.

In addition to personality, we found that state of health and presence of disability were important influences on wellbeing. People who had a long-term illness or disability that limited their activities had markedly lower wellbeing scores. On average, the more difficulties people had in carrying out activities of daily living – such as cutting their toenails or going up stairs – the lower their mental wellbeing. We found no indication that age itself had any effect on wellbeing, rather it is the illnesses and disabilities that become more common with increasing age that tend to have a detrimental effect on people's happiness.

Another important influence on wellbeing in later life was how people felt about their neighbourhood. We measured people's sense of cohesion to their neighbourhood; in other words, how much they felt they belonged to their neighbourhood, and how involved they were with their neighbours. People who had a stronger sense of cohesion to their neighbourhood tended to have a higher level of wellbeing. Living in an area where there was more antisocial behaviour or noise also seemed to affect wellbeing. People who reported fewer problems with their neighbourhood in terms of litter, burglaries, vandalism, muggings, traffic and noise had a higher level of wellbeing.

We also explored whether people's current socioeconomic circumstances were linked with their wellbeing. We found no evidence that wellbeing varied according to income or social class.

Finally, we examined whether growth in early life or the social environment into which people were born affected their wellbeing. Poor growth before birth or in the first year of life was not linked with wellbeing. But on average, men and women who were born into a more disadvantaged environment, as measured by their father's social class, had lower levels of wellbeing in later life. One explanation for this may be that exposure to a more disadvantaged environment in early life can affect the way in which personality traits develop.

We are very grateful to all of you who took part in our wellbeing study. With your help we have been able to learn more about how factors from different stages in life influence how people feel at older ages.

Wellbeing interviews

You may remember from our last newsletter that we were planning some "in-depth" interviews with a small portion of participants from the Hertfordshire Cohort Study about well-being. This is part of a collaborative research programme called Healthy Ageing across the Lifecourse (HALCyon), which will help improve the lives of older people through better understanding of how healthy ageing is affected by social, psychological and biological factors acting across the whole of a person's life.

We hope that by using one-to-one interviews to find out about people's subjective experiences and beliefs, this will provide insights that we could not get from questionnaires alone.

During 2010, in-depth interviews were carried out with 30 members of the Hertfordshire Cohort Study (HCS) and 30 members of the 1946 National Survey of Health and Development (NSHD). Conducting the interviews in two cohorts will enable us to carry out many comparisons between the two. Interviewing has now been completed; the HCS interviews lasted an average of 1 hour and 57 minutes, ranging between 57 minutes and 4 hours and 34 minutes. We want to once again thank those who gave their time to this project. The interviews were rich, personal and immensely valuable. We will now go on to look at relationships between people's life stories, their sense of wellbeing and the physical process of ageing.

The data from the interviews has now all been transcribed, and analysis has begun. At the last HALCyon team meeting in early November we reported some early findings on responses to questions 'What are the advantages and disadvantages of being the age that you are?' and 'Why do you think some people are healthier than others?' These will be made available on our website in the near future. In the meantime, for further information on the HALCyon project please see **www.halcyon.ac.uk.**

Drum roll please...

We are pleased to announce that the MRC Unit in Southampton has a new name! On September 1st we ceased to be called the Epidemiology Resource Centre (ERC), and became the Lifecourse Epidemiology Unit (LEU).

This won't mean any changes for you, only a slight change in our logo and the address on our letters.

MRC Lifecourse Epidemiology Unit

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!

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

MRC Lifecourse Epidemiology Unit
University of Southampton
Southampton General Hospital
Southampton SO16 6YD

Tel: 023 8077 7624