



**UNIVERSITY OF  
CAMBRIDGE**



European Prospective Investigation of Cancer

**THANK YOU** for your participation in the **University of Cambridge** European Investigation into Cancer and Nutrition in Norfolk (EPIC-Norfolk) Study. We are immensely grateful to you for the time and effort you have dedicated to take part in this important medical research, which would have not been possible without your help. We have made some significant findings recently and these are reported here in this newsletter

### **Background:**

In order to prevent certain diseases, we need to understand the causes. You have been taking part in The European Prospective Investigation of Cancer and Nutrition in Norfolk (EPIC-Norfolk) Study which is part of an European wide study looking at relationships between diet, environment and lifestyle in half a million people in and the effects on their health in ten different countries. Initially the research was focussed on cancer, but broadened to include



other major chronic diseases such as cardiovascular disease, diabetes and osteoporosis. From the start of the Study, over 30,000 people have completed the original questionnaires, over 25,000 men and women came for the first health check ( and over 15,000 came for the second. A vast number of participants are continuing to complete questionnaires to this day. No other prospective study of this size has such detailed and high quality data, which we have collected from the **Questionnaires and health checks you have done for us!**

We have collected an enormous amount of very accurate information, which we have used to study what foods and lifestyle factors appear to prevent the development of diseases.

### **Recent Activity**

Since the last health check, we have been entering and analysing the vast amount of data collected so far and from this we have been successful in publishing a number of papers. Some of the key findings that we feel may be of interest are given below. You can find a list of all our papers on the rest of our research on our website <http://www.epic-norfolk.org.uk> and click on publications.

### **Key Findings**

We have made some important findings, all of which cannot be listed here. Although there is still a lot of work to do, it is clear from the data that we have collected so far, that it is possible to make realistic changes to your lifestyle and have better health.

**Physical activity and increased longevity:** The results from this study have been used by the Department of Health's 'Small change, big difference' campaign. We all know that physical activity is associated with improving health, reducing risk of heart disease and stroke. Our study has shown that small and achievable differences in physical activity (in both work and leisure time) can make a big difference in health. This result should encourage people to make some changes in their lifestyles to give them a better chance of living longer, healthier lives.

**Breast Cancer and Fat:** You may recall in July 2004, we were on the news with some exciting results where our study showed that women who ate the least saturated fat (found in full-fat milk, meat, cakes and biscuits), have half the risk of developing breast cancer than those women who had a highest saturated fat diet.

**Salt (Sodium), potassium and Blood Pressure:** Our study showed that small and easily achievable reductions in salt intake, e.g. by less than a teaspoon daily, may halve a person's chances of getting high blood pressure. We also found positive impact of high intake of potassium in the diet, found in plant foods such as fruit and vegetables appears to protect against high blood pressure.

**Bowel cancer; high dietary fibre protects against effects of high meat intake:** We have found that high dietary fibre intake lowers and high meat intake increases risk of bowel cancer. Those who eat more meat and little dietary fibre have a higher cancer risk and those who have high dietary fibre or high fish intake appear to be protected against the effects of meat intake and risk of bowel cancer.

**Obesity and cancer risk:** We found obesity to be a risk factor for a number of cancers including breast cancer in women after the menopause, and kidney cancer. Avoiding obesity may be one way to reduce risk of a number of cancers. Further work is needed to see why obesity may increase cancer risk to help us understand how better to prevent or treat cancer.

**Sex hormone levels in women and breast cancer risk.** In the Europe wide EPIC study, women who had higher blood levels of sex hormones including testosterone (male hormones) as well as estrogen (female hormone) appear to have higher risk of breast cancer. If we can identify dietary and other lifestyle factors that influence sex hormone levels in women, this may indicate ways to lower breast cancer risk.

### **Third Health Check**

So what are we doing now? More than 12 years since our initial approach, our participants are in the age range of 50-89 years. We are now embarking on our Third Health Check (3HC) and are inviting our participants back for a health examination to look at how things have changed since last time and to expand the study further.



We now want to look at what happens to us as we age and how this impacts our daily lives and whether this makes us more prone to serious illnesses such as cancer, heart disease and diabetes. We will be focussing on what happens to our minds and bodies as we age and look closely at the lifestyles of those people who seem to have better health and memory.

Also in this phase, using the most up-to-date technology, we are planning to take a detailed look at the eyes and vision and



how lifestyle and environmental factors influence a person's risk of developing eye disease.

Unlike previous EPIC health examinations, this one is very detailed and requires a lot of specialist equipment. Therefore we have set up a central clinic in Norwich. Preliminary results



from our pilot have shown a very positive response from the participants we approached. The 3HC is planned to run for five years over which period we aim to invite all of our participants still on our database (currently just over 25,00). You can find out more about the 3HC from our website on <http://www.epic-norfolk.org.uk> and click on 3HC

## **Future**

It is extremely important that we continue with this work and we are grateful for your participation. You are making a major contribution to research, which will feed into health policies that will advise on prevention of major diseases and improvement of health.

We would like to say a very big thank you to you, our participants, who, through your continued dedication to EPIC, have made this study so successful. For more information visit [www.epic-norfolk.org.uk](http://www.epic-norfolk.org.uk)

The EPIC-Norfolk Sponsors include The Medical Research Council (MRC) The British Heart foundation (BHF), Cancer Research UK (CRUK), The Stroke Association, The Wellcome Trust, Department of Health, The Foods Standards Agency (FSA), The Medical Academy of Sciences and Research into Aging. The wider European study is co-ordinated by the World Health Organisation's International Agency for Research into Cancer (IARC).