

## Volunteers needed to test exercise immune response

Posted on Wednesday 13th October 2010

Researchers at the University of Birmingham's School of Sport and Exercise Sciences are looking for volunteers to take part in a study examining whether exercise can enhance antibody response to vaccination.

The study will test the effect of a brisk walk on the antibody response to pneumococcal and influenza inoculations. Previous research carried out by the University has shown that people who complete a relatively intense bout of acute aerobic or weights exercise, prior to receiving a vaccination, have enhanced antibody responses to the vaccine.

Joanna Long, Chief Investigator on the project said: "Our recent research shows that even low intensity weights exercise improves vaccination response. This suggests that you might not have to do very much exercise to get a beneficial effect. We are going to be examining the effect of a less intense aerobic exercise, brisk walking, on antibody responses to vaccination.

"We know that the antibody response to vaccinations deteriorates with age. Most previous research, though, has focussed on young, healthy adults, so for the first time, we are going to compare the effects of this intervention in younger (18-25yrs) and older (50-64yrs) adults" added Miss Long.

Volunteers will be required to attend the laboratory for two sessions over a period of one month. The sessions will involve a brisk 45 minute walk, before receiving a vaccination against pneumonia and influenza. Blood samples will be taken before and after the exercise, and one further sample one month later.

The study will begin Monday 18th October 2010 and testing will carry on every weekday for 5 weeks. The study will take place at the School of Sport and Exercise Sciences at The University of Birmingham and volunteers will be paid £30 for their time.

Anyone wanting to take part or to find out more should contact Joanna Long on 0121 414 8743 or on email [je1501@bham.ac.uk](mailto:je1501@bham.ac.uk) (<mailto:je1501@bham.ac.uk>)

### Notes to Editors:

Researchers are looking to recruit:

- 30 females and 30 males between the ages of 50-64.
- 30 males and 30 females between the ages of 18-30.

Exclusion criteria for participants:

- Participants must not have had this year's influenza vaccination or the pneumococcal vaccination in the last 10 years.
- Participants must not suffer from any immune disorders, take medication which may interfere with immune responses or be allergic to egg or chicken proteins.
- Participants must not suffer from diabetes mellitus, asthma, congestive heart failure, any psychiatric disorders, recent history of cancer, inflammatory disease, cardiovascular disease, chronic obstructive pulmonary disorder or wear a pacemaker.
- Participants must not have a history of Guillain-Barre syndrome nor be pregnant or breastfeeding.
- Participants will also be excluded if they report being highly endurance trained
- Participants must not be allergic to latex
- On the day of participation, participants must not be suffering from an acute infection or febrile illness
- Participants must not fall within a target risk group for either the pneumococcal or influenza vaccinations.

The study is being organised by scientists at the University of Birmingham and funded by Action Medical Research.

### Further media information:

Kali Tiwana, University of Birmingham Press Office, tel: 0121 414 6029.