

VOLUNTEER INFORMATION SHEET

Project Title: Acute Effects of Resveratrol on circulatory function

Background

Mildly elevated blood pressure can reduce the amount that blood vessels around the body are able to dilate. Optimal cardiovascular and metabolic function during exercise is dependent upon dilation of the blood vessels. Insufficient blood vessel dilation will reduce the blood being delivered to the working muscles and also cause an exaggerated rise in blood pressure while exercising. Using a small pressure cuff (like a miniature blood pressure cuff) on one finger we are able to continuously measure blood pressure during exercise, and from this measurement, determine the amount of blood vessel dilation.

Resveratrol is an ingredient found in red grapes. It is an active nutrient which may improve blood vessel function. The aim of this study is to determine if consuming resveratrol one hour beforehand can increase the amount of blood vessel dilation at rest and during exercise.

Several studies have shown that people who have elevated blood pressure responses to exercise are at risk greater of developing hypertension in the future. We hope to be able to lower blood pressure responses to help prevent the development of hypertension.

Conduct of the study

This study will require you come in to the Nutritional Physiology Research Facility for 5 short visits. For each visit you will need to refrain from eating or drinking (except water) for four hours before your scheduled appointment.

During the first visit we will measure your blood pressure after you have been sitting quietly for 5 min, weigh you and measure your height. This will be done to confirm that you have either systolic blood pressure between 130 – 160 mmHg or diastolic blood pressure between 85 – 100 mmHg (i.e. high normal blood pressure or mild hypertension). If your blood pressure fulfils this requirement you will then be asked to perform a short 10 min test on an exercise bicycle to assess your heart rate. Your heart will be measured via ECG which involved three adhesive electrodes placed on your upper body. This test will be performed under the supervision of a medical practitioner.

Before attending the research centre for your next visit you will need to attend the IMVS clinic on Frome Rd to provide a small blood sample.

For the four subsequent visits you will consume a capsule containing one of four doses of resveratrol. After taking the resveratrol you will rest in the clinic for 45 minutes before testing. After this we will firstly assess the ability of your blood vessels to dilate, we will use ultrasound to record images of an artery in your upper arm. We will inflate a blood pressure cuff positioned on your forearm for 5 minutes and then release it and record images for 5 minutes.

After this we will take a small blood sample (~20ml).

You will then be required to sit on an exercise bike and we will position a small finger cuff around your middle finger which will continuously measure your blood pressure. We will record for five minutes before you begin to exercise and then for ten minutes while you are cycling at 70% of your maximum heart rate. We will continue to record for another five minutes once the ten minutes of exercise is complete.

Neither you nor the researcher will know which of the supplements you have consumed. You will consume one of the four supplements on each of the four testing sessions.

All information collected as part of the study will remain confidential and no information which could lead to identification of any individual will be released. All information collected will be retained for 15 years. Participation in this study is voluntary, and you may withdraw from the study at any time without affecting your status, now or in the future. Although original data collected in this trial will be provided to the industry sponsor of this research, the sponsor will not be given the means to de-code and identify participants. This means that the sponsor will not be able to use the data to identify you.

On completion of the study requirements you will be paid an honorarium of \$80 to compensate you for your time, effort and incidental expenses. You will be provided with a copy of your personal results from the study once it is completed. These results will be provided by mail to your home address within a month of completion of their final assessment. A summary of the findings of the study will be mailed following completion of the study and analysis of the results.

Risks

There are no known risks associated with taking Resveratrol at the amounts being used in this study.

Blood Sampling: will be taken by venepuncture. The associated risks are:

- Infection - although all of the needles will be sterile and all reasonable precautions will be taken, in any situation involving penetration of the skin there is a slight risk of infection.
- Blood Clotting - insertion of a needle into a blood vessel involves a risk of a blood clot forming which can travel through the circulation and block a smaller blood vessel somewhere else. However, the danger of this occurring is considered to be remote.
- Bruising - it is possible that you may experience slight bruising around the area where the needle was inserted. This is nothing to worry about as any such bruising should clear up within a few days. Blood thinning agents, such as aspirin and ginko, should not be taken three days prior to sampling.

If you would like to participate in the study, or if you, or any member of your family, require more information to help you arrive at a decision, please contact:

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This project has been approved by the University of South Australia's Human Research Ethics Committee. If you have any ethical concerns about the project or questions about your rights as a participant please contact the Executive Officer of this Committee, Tel: +61 8 8302 3118; Email: vicki.allen@unisa.edu.au