

INFORMATION SHEET

Thank you for your contribution to the Raine Study and your participation in the 16-year Follow-Up. Now that you are 18 years old, we have an optional study that we would like you to consider. It's about how our bodies react to stress.

You may remember that when you were 16, you collected your own saliva for us by chewing on a cotton swab just after you woke up on three consecutive days. On the 3rd day, a Raine Study nurse came to your house in the early morning to take a blood sample. These samples were used by us to measure your stress hormone levels under **resting** conditions. In the 16-year follow-up we were interested in studying how well the body regulates the release of stress hormones while being at rest or unchallenged. This will allow us to investigate how high or low levels of stress hormones at rest relate to health and development.

So why do we want to look at stress hormones again?

Stress hormones play a role in many diseases and we need to understand better whether in some diseases (which can range from heart disease to depression and anxiety) stress hormones contribute to the cause of them. We then may be able to increase resilience (i.e. not being too sensitive to stress) and improve health in those people at risk of the development of these diseases in adult life. So in addition to having assessed stress hormones when you rested at 16 years of age, we now want to measure what happens to your stress hormones when we give you a challenge that will make you feel a bit under stress.

Feeling a bit “stressed” is something that happens to all of us regularly. For example, your body would release extra stress hormones (cortisol) if you're late for an appointment, sitting an exam, but also under happy circumstances such as winning the lotto! This extra release of stress hormones helps your body and brain to deal with the challenge and it only lasts for a short period of time. In the minutes after the “stressful event” your higher stress hormone levels fall back to normal. **During *The Raine Challenge Me Study*, we would like to measure your peak and decline in stress hormone levels in response to two short tasks.** That's it, no other tests will be included in this study at 18 years.

So what does the study involve? Well, to be honest, we can't exactly tell you! To get a proper stress response we need to keep it a bit of a surprise. However, we can promise you it won't be painful in any way or physically demanding. The challenge will be given separately and privately to each participant, so you also do NOT compete with other Raine participants. It's more an activity where each individual will be given a psychological challenge that you could come across in everyday life. You will be given a surprise scenario and you will have to think on your feet how to react, a bit like the TV show “Thank God You're Here!” WITHOUT a jury, an audience and dressing up.

The two tasks of the challenge will only take 15 minutes, but we will need a total of about two and a half hours of your time. There will be relaxing time included to make sure we measure your response to the challenge and not anything else. During the 90 minutes after the challenge we would like to take several blood and saliva samples, so we can track when your stress-induced hormone levels peak and when they return to resting levels.

The study will be performed in the early afternoon. Unfortunately if you eat or drink anything other than water within 1 hour before your test starts, this will affect your stress hormone levels.

So we will ask you what time is best for you to have lunch and have the test starting at least 1 hour later.

The blood test will require us to insert a small needle into your forearm only **once** at the start of the test. The needle is the same size as we used in the 16-year Follow Up, so the needle prick will feel very similar to what you've had before. We will connect the needle to a small attachment, so it can stay in your forearm during the length of the test, it will not stop you from moving your arm freely and we can collect all blood samples with no further needle pricks. We will remove the needle at the end of the test.

From your previous blood tests you may remember that it could cause little discomfort in your forearm, some bruising or swelling. In rare cases there may be slight bleeding but this is unlikely if a band-aid is left in place after the test.

Of course, the results of your blood and saliva analysis will be treated confidentially. They will be stored long term in a protected Raine Study database and will only be used by the Raine Study researchers with authorized access to these results. They are labelled with your Raine ID number, but not your name to protect your privacy.

Your participation in *The Raine Challenge Me Study* is voluntary and you should realize that the results of each separate test are not meaningful to each individual Raine Study participant. You have the right to withdraw at any time without giving us an explanation. It does not affect whether or not you participate in the next Raine Study follow-up. Please feel free to ask any questions before the test -- except for the details of the challenge!

We look forward seeing you soon.

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