

**STRESS: KIECOT-GLASER ET AL.
STRESS AND THE IMMUNE SYSTEM**

Aim: to investigate whether stress of important examinations has an effect on the functioning of the immune system

Procedures:

- ❑ This was a natural experiment using 75 medical students
- ❑ Blood samples were taken: (a) one month before their final examinations (relatively low stress), and (b) during the examinations (high stress)
- ❑ Immune functioning was assessed by measuring NK cell activity in the blood samples
- ❑ The students were also given questionnaires to assess psychological variables such as life events and loneliness

Findings:

- ❑ NK cell activity was significantly reduced in the second blood sample, taken during their final examinations, compared with the first sample (taken one month before their final examinations)
- ❑ NK cell activity was most reduced in participants who also reported high levels of life events and loneliness

Conclusions:

- ❑ Examination stress reduces immune function, potentially leaving the individual vulnerable to illness and infections
- ❑ Immune function is also affected by psychological variables such as the stress of life events and feelings of loneliness. These long-term stressors may make individuals more vulnerable to the added effect of short-term stressors such as examinations

Criticisms:

- ❑ This was essentially a correlational study, so a strong conclusion about cause and effect relationship cannot be drawn
- ❑ It was a natural experiment using a natural source of stress and therefore had reasonable ecological validity, but students may be a special group and generalisations should be made with caution