BACKGROUND

Recent evidence suggests that sedentary behaviour (SB) is linked to multiple poor health outcomes, independent of physical activity level (Thorp et al., 2011).

Office workers spend up to 75% of the working day sedentary, often in prolonged periods extending 30 minutes (Evans et al., 2012, Neuhaus et al., 2014).

Methods

- Sedentary behaviour will be objectively measured using an accelerometer (activPAL, PAL Technologies Ltd, Glasgow, UK) worn for 7 days pre-intervention and at 2 weeks, 2, 5, 8 and 12 months following desk installation.
- Desk height/movement/usage will be monitored objectively throughout the 12-month period using the Java Sun Spot wireless sensor network which will be attached to the top shelf of the desk.
- Participants will complete self-report workstation use be will beblinded to the objective measure of its use.

### Methods

#### Measurement tools

- **activPAL™**
- **Java Sun Spot**

#### Intervention

The proposed RCT will examine the effects of providing a sit-stand workstation on SB in office workers over a 12-month period.

#### Cohort

40 office-based university staff aged 18-65 years will be randomized into
- control group (SB in usual environment)
- intervention group (SB and sit-stand workstation).

#### Methods

- **Self-report of desk use is subject to social desirability and recall bias and objective measurement of SB among desk users assumes that reductions in sitting are a result of sit-stand workstation use.**

- Objective monitoring of the desk height/movement married to objectively measured SB in users may overcome this methodological problem.

- **Ergotron WorkFit sit-stand desks and stands allow manual adjustment from sitting to standing height throughout the work day.**

- **Data from accelerometer attached to the standing desk. The activities of lowering/raising and typing on the desk, along with non-use can clearly be seen.**

- **Ergotron WorkFit sit-stand desks and stands allow manual adjustment from sitting to standing height throughout the work day.**

#### References

- Evans RE, Fawole HO, Sheriff SA, Dall PM, Grant PM and Ryan CG. 2012. Point-of-choice prompts to reduce sitting time at work: a randomized trial.

## METHODS

**Measurement tools**

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**activPAL™**

**Java Sun Spot**

- Data from accelerometer attached to the standing desk. The activities of lowering/raising and typing on the desk, along with non-use can clearly be seen.

**Ergotron WorkFit sit-stand desks and stands allow manual adjustment from sitting to standing height throughout the work day.**

**To date sit-stand workstations use has been determined by self-report diary, and their effectiveness has been attributed to the objectively measured SB of the desk user.**

Self-report of desk use is subject to social desirability and recall bias and objective measurement of SB among desk users assumes that reductions in sitting are a result of sit-stand workstation use.

Objective monitoring of the desk height/movement married to objectively measured SB in users may overcome this methodological problem.

The findings of the study will provide useful information on the pattern and sustainability of sit-stand desk use and inform interventions to reduce SB in the workplace.

**The proposed RCT will examine the effects of providing a sit-stand workstation on SB in office workers over a 12-month period.**

**Cohort**

40 office-based university staff aged 18-65 years will be randomized into
- control group (SB in usual environment)
- intervention group (SB and sit-stand workstation).

**Percentage of working day that office workers spend sedentary**

- **UP TO 76%**

**References**

- Evans RE, Fawole HO, Sheriff SA, Dall PM, Grant PM and Ryan CG. 2012. Point-of-choice prompts to reduce sitting time at work: a randomized trial.