

## Good Pipetting Techniques – Helping to prevent RSI with Good Techniques

### Scope

Within the NDMRB there are various types of pipettes and working in the laboratory pipettes are widely used for long periods of time. RSI is a common potential injury which can be caused through prolonged incorrect use of pipettes. A number of factors can contribute to this and this SOP aims to give guidance on techniques which can be employed to reduce the risk of RSI caused by long periods of incorrect pipetting. ***This replaces TDI-SOP-016***

### 1.0 Ensuring a good technique when pipetting

On average, a laboratory worker will use pipettes for approximately 300-500 hours a year. Because of this pipetting has been identified as having the potential to cause injury through the repetitive nature of the task. By following the advice within this SOP you will reduce the risk of RSI and improve your pipetting technique.

### 2.0 Things to avoid while pipetting

When sitting: Avoid working with your shoulders and upper arm elevated, elbow extended and the wrist in deviation

When standing: Avoid stooping your upper back, lower back, trunk and neck and avoid flexing the elbow in this position

Wrist posture: Avoid flexing your upper arm, extending your elbow, deviating your wrist downwards or extending it backwards. Avoid forearm contact on the edge of the bench

### 3.0 Action to employ whilst pipetting

When sitting: Sit using a chair that has a proper back support, keep your upper back and neck upright. Keep your upper arm vertical and the wrist in the same plane as the forearm.

When standing: Keep your upper back, lower back, trunk and neck upright with your upper arm vertical. Keep your elbow at 90° with the forearm parallel to the floor and your wrist in the same plane as the forearm.

Wrist posture: Your forearm should be parallel to the floor with your wrist and forearm in the same plane.

Always try to work with your hands below shoulder height.

#### **4.0 Other things to consider**

- Do not over reach and prevent twisting motions.
- Keep the most frequently used items in front of you and the items you use less further away
- Work at a comfortable height and vary your pipetting activities, try using both hands.
- Grip the pipette lightly and stretch frequently.
- Take regular short breaks and alternate your pipetting activities with other tasks.

#### **5.0 References**

- <http://www.anachem.co.uk>

#### **6.0 Risk Assessment**

NDMRB-RA-076 RSI from prolonged periods of incorrect pipetting

#### **7.0 Review**

This SOP shall be reviewed every three years by the laboratory manager or relevant personnel