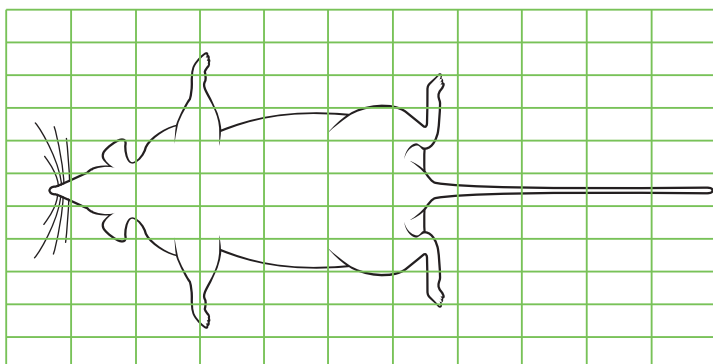


ImpediVet Rodent Measurement Guide

Standardizing the measurement procedure is very important for tracking changes in body composition

1 Preparing your subject

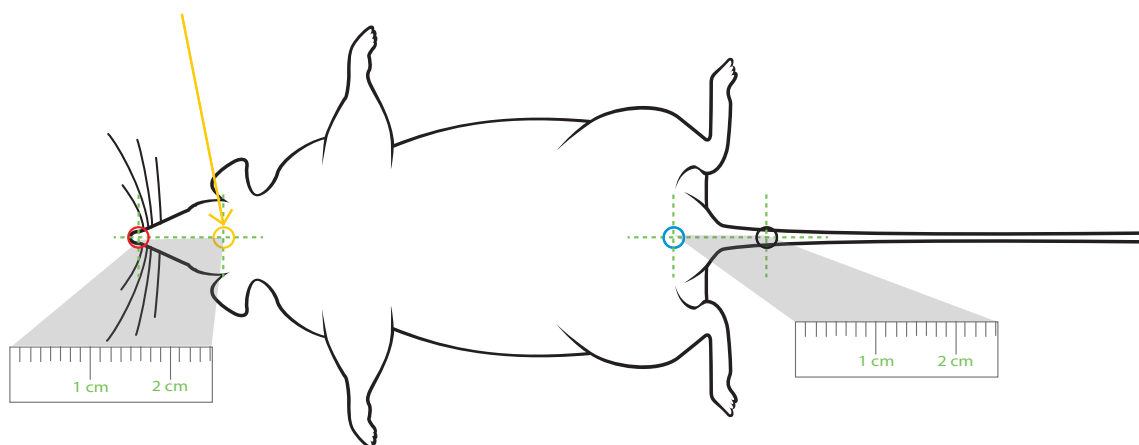


- Place the rodent stomach down with front paws out to the side and hind legs flat and facing backwards.
- When placing the rodent ensure not to “overstretch” the rodent (The animal should be lying in a “natural fall position”).
- When measuring a series of rodents of similar lengths it may be helpful to use a grid paper to standardize the measurement position of the rodent.

2 Electrode placement

STEP 1: Place the **YELLOW** needle electrode midline down the back by drawing an imaginary intercept from the ears with the midline from the nose of the rodent.

STEP 2: Place the **BLUE** needle electrode midline down the back by drawing an imaginary intercept from the where the muscle of the thighs of the rodent meet the body to the midline.

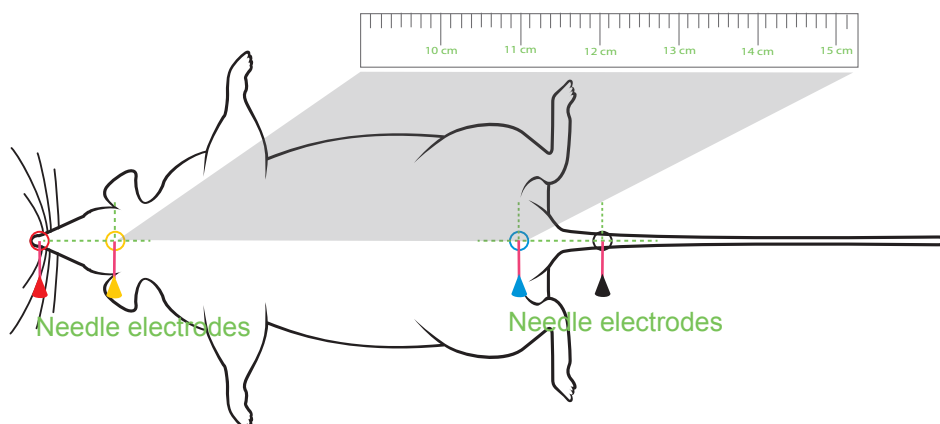


STEP 3: Place **RED** needle electrode 2cm (1cm for small rodents) from the **YELLOW** needle electrode placement site.

STEP 4: Place **BLACK** needle electrode 2cm (1cm for small rodents) from the **BLUE** needle electrode placement site.

- Make sure the tip of the needle electrode is located at the individual points.

3 Taking the measurement



- Measure the distance down the midline of the back of the rodent from the **BLUE** to **YELLOW** needle electrodes (enter this measurement as Length into the ImpediVet device).
- Make sure the leads of the ImpediVet device are not tangled and lie perpendicular to the rodent. It is optimal if the lay of the leads is standardized from measurement to measurement.
- Press the measure button and check for the formation of a well formed Complex Impedance plot.

ImpediVet Rodent Measurement Guide

Rodent Measurement Guide Helpful Hints

1. Standardizing the measurement procedure is very important for tracking changes in body composition.
2. Run the test cell each day that a measurement will be taken prior to beginning measurements.
3. It may be necessary to shave off the fur at the needle placement sites for access. If the rodent is shaved, marking the needle placement with ink can aid in ensuring consistent placements in future measurements.
4. Ensure the needle electrodes are in a stable position to avoid lead movement.
5. Secure the leads to minimize pull against the needle electrodes.
6. Always check to ensure the needle electrodes are properly positioned and the colour coded leads are in the correct position prior to taking the measurement.
7. Ensure rodent is not touching any metal surfaces or objects. If a metal bench top is used, try to provide as much space between the rodent and the bench top as possible.
8. Ensure rodent remains still during the measurement.
9. Once needle electrodes are in place, ensure the reading is taken after 3 minutes but no longer than 10 minutes.
10. Ensure the limbs are appropriately positioned away from the torso (refer to image on page 1).

| ImpediVet Rat Coefficients | | |
|-----------------------------------|---------------|-------------|
| | Female | Male |
| RHOe | 289.0 | 324.9 |
| RHOi | 669.2 | 751.8 |
| Density | 1.05 | 1.05 |
| Proportion | 1 | 1 |
| Hydration | 0.732 | 0.732 |

| ImpediVet Mice Coefficients | | |
|------------------------------------|---------------|-------------|
| | Female | Male |
| RHOe | 586.9 | 998.9 |
| RHOi | 756.8 | 1220.2 |
| Density | 1.05 | 1.05 |
| Proportion | 1 | 1 |
| Hydration | 0.732 | 0.732 |