Standard Operating Procedure **Use of Height and Weight Scales**			
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1.0 POLICY

Height and weight measurements provide the necessary details to calculate the body mass index (BMI) of research participants. This standard operating procedure (SOP) describes the correct procedures for taking height, weight, and BMI measurements for clinical research, including clinical trials, using the height and weight scales in the W.J. Henderson Centre for Patient-Oriented Research (WJHCPOR).

2.0 PURPOSE

All users of the WJHCPOR should familiarize themselves with this SOP to ensure correct procedures when taking height, weight, and BMI measurements.

3.0 RESPONSIBILITY

Users are responsible for:

- Attending orientation and training on the proper use of the height and weight scales.
- Following the procedures listed in this SOP. **NOTE**: If at any time users are unsure how to operate the height and weight scales safely, please refer to the instructional manual and/or ask the designated KGHRI staff member for assistance.
- Reporting any damage to the height and weight scales to the designated KGHRI staff member immediately so equipment repairs can be made.

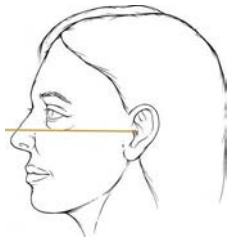
KGHRI is responsible for:

- Ensuring all height and weight scales are in good repair and labelled with appropriate contact information for maintenance and repair.
- Training new users in safe usage and maintenance of the height and weight scales, documenting the training of all users, and supervising use when necessary.
- Ensuring instructional manuals are readily available to all users, if required.
- Ensuring that all the regular and periodic maintenance required is carried out and recorded in the Maintenance Log.
- Ensuring the records of repair are kept and available for inspection.

4.0 PROCEDURE

Standing Height

- With the headpiece in the folded down position, slide the headpiece up or down to the estimated height of the research participant. Then raise the headpiece into its horizontal position.
- Ask the research participant to remove his/her shoes and any headwear (i.e. scarves, hats) with the exception of religious headwear. Ask the research participant to step onto the platform. Position the research participant facing the display head. Ensure that the research participant's posture is upright, and that the research participant's head is straight and level. Slide the headpiece down until it rests on the research participant's head. If adjustment is required, ask the research participant if it is okay to position their head. Place your fingers on the bony prominence of the skull just behind the lower part of the ear (the mastoid bones) and your thumb on the posterior point of the bony prominence of the jaw. Adjust the head until it is aligned in the Frankfort horizontal plane, as shown in the image below.



Frankfort horizontal plane

- Ask the research participant to take a deep breath in. This will allow the spine to straighten, yielding a more consistent measurement of stature. The research participant must hold this position while the measuring arm is brought down to the top of the head. Sufficient pressure should be applied to the measuring arm to fully compress the hair.

- Determine the research participant's height by reading the value on the measuring strip nearest to the line on the indicator, as shown in the images above.

Weight

- If a research participant weighs more than 500 lbs or 227.3 kg, the scale will not be able to produce an accurate measurement because this will exceed the maximum weight the scale can measure. The display will read **OVER**. If this is the case, you will not be able to measure the research participant's weight. Record this as the reason why the measurement was not taken. Users will need to take their research participant to another large scale in the hospital for an accurate measure of their weight.

- Ask the research participant to remove his/her shoes and any headwear (i.e. scarves, hats) with the exception of religious headwear. Have the research participant remove any excess layers of clothing or items in their pockets (i.e. sweaters, sweatshirts, wallet, cell phone).

- Make sure there is no object on the weighing platform of the scale. Press the ON/OFF button to turn the scale on. Wait until the "0.0" LB or "0.0" KG appears on the display.

- Ask the research participant to stand on the platform of the scale facing the wall, placing their weight evenly on both feet. The scale will begin to display weight information and will lock on the research participant's weight when the stable weight of the research participant is determined. Depending on the movement of the research participant on the scale, it may take several seconds for the scale to lock onto the weight.

Body Mass Index (BMI)

- BMI is a value derived from using a research participant's weight and height measurements and is interpreted as a BMI score. BMI scores are used to measure the amount of body fat. BMI is usually expressed in units (kg/m^2). **NOTE**: The scale will not be able to calculate a BMI for a research participant that is 24 pounds (10.9 kg) or less.

- Ask the research participant to remove his/her shoes and any headwear (i.e. scarves, hats) with the exception of religious headwear. Have the research participant remove any excess layers of clothing or items in their pockets (i.e. sweaters, sweatshirts, wallet, cell phone).

- Make sure there is no object on the weighing platform of the scale. Press the ON/OFF button to turn the scale on. Wait until the "0.0" LB or "0.0" KG appears on the display.

- Ask the research participant to stand on the platform of the scale facing the wall, placing their weight evenly on both feet. The scale will begin to display weight information and will lock on the research participant's weight when the stable weight of the research participant is determined.

- After obtaining the research participant's weight on the scale, press the **BMI** button while the scale is on. **NOTE**: If a height is not entered for the research participant within 30 seconds of pressing the BMI button, the scale will return to the normal weighing mode.

- The display will show 65 inches (in LB mode) or 150 cm (in KG mode). When weighing in pounds, the height is displayed in inches. When weighing in kilograms, the height is displayed in centimeters. Use the ▲and ▼ buttons to enter the research participant's height. To determine the research participant's height, follow the Standing Height measurement instructions above.

- Once the height is keyed in, press the **ENTER** button. The display will show the research participant's BMI. Press the **CLEAR** button to return to the normal weighing mode of the scale.

Reference Guide

Function	Description
ON/OFF	Turns scale on and off
HOLD/RELEASE	Holds the weight value of the participant on the display until the button is pressed again to clear the value
LB/KG	Toggles between pounds (LB) and kilograms (KG)
BMI	Prompts entry of height data to calculate participant's Body Mass Index.
UP ▲	Increases height input (0.5 in. / 0.5 cm increments)
ZERO	Zeroes out or tares the scale prior to weighing.
CLEAR	Clears the incorrect height input when in BMI mode
ENTER	Used to accept height value in BMI mode
DOWN ▼	Decreases the height input (0.5 in. / 0.5 cm increments)

Contraindications to Using the Height and Weight Scales

- Users should not take height and weight measurement of research participants if they are not able to stand independently (unassisted) on the platform.
- Users should make a note of any condition(s) that would affect the measurement of standing height or weight (e.g. unable to fully straighten their back).

Cleaning of Height and Weight Scale

- Use an Oxivir® wipe to clean the measuring arm and any portions of the scale that may have made contact with the research participant, including the platform.
- Cleaning should occur prior to and after taking measurements.

5.0 CONTACTS

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6.0 SOP HISTORY

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SOP-UHWS-01	01-DEC-2017	Original version.