

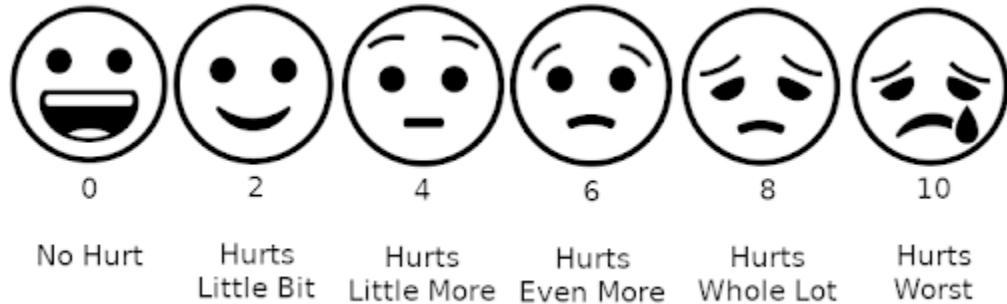
# Thermotape High-adhesion Medical Tape Comparison Study

June 21, 2022

## Primary Results:

### Pain experienced from Removal

The following 0-to-10-point Wong Baker scale will be used to quantify pain experienced by the subject during tape removal:



Subjects are to use the scale to determine the level of pain experienced after each piece of tape is removed and researchers are to record the number determined. Whole numbers between each face may be used as well.

The average for each population group will be obtained after data has been collected from the participants.

### Skin Irritation

The following 0-to-4-point scale will be used to quantify the redness of the skin after tape removal:

Grade	Erythema/Irritation
0	None - natural skin tone
1	Slight - Barely visible increase in pink coloration
2	Mild - Visible increase in light pink coloration
3	Moderate - Diffuse pink coloration, localized or diffuse areas of reddened skin
4	Severe - Intense redness, diffused or localized

The average for each population group will be obtained after data has been collected from participants.

## **Secondary Results:**

### Skin Cells

To prepare cells for examination, the cells on the tape will be transferred to a glass slide and heat fixed. After, one drop of methylene blue will be added to the center of the slide and a glass slide cover will be gently placed on the dye. A paper towel is then used to diffuse the excessive dye out of the slide cover. An optical microscope will then be used to examine for skin cells at 10x magnification.

Five images will be taken from each tape and an algorithm will be used to count the number of cells within the image. An average will be taken for each population group.

### Tape Wear

The following 0-to-7-point scale will be used to examine the wear of the tape when subjects come in for tape removal:

Grade	Wear/Adhesion Description
0	Test strip off
1	Test strip almost off
2	$\frac{3}{4}$ of test strip off
3	$\frac{1}{2}$ of test strip off
4	$\frac{1}{4}$ of test strip off
5	3 to 4 edges lifted
6	1 to 2 edges lifted
7	All corners adhered

An average will be taken for the tapes to determine how much wear is experienced for tape brand. An activity log will also be collected from each participant to determine the probable cause of tape wear if a grade three or below are obtained.

### Hair Follicles

Visual inspection will be used to count the hairs removed from tape removal. This will be averaged for each brand of tape.

### Trans-epidermal Water Loss (TEWL)

A TEWL probe, Delfin, will be used to collect local water loss on the area of where tape is applied and an area where tape was not applied. The collected values will be averaged to determine how much water is loss for each brand of tape.