### Why are skin tears an issue?

Corneal Abrasions and Skin Tears are common perioperative injuries and concerns for patients undergoing anesthesia procedures.

Skin Tears are wounds resulting from shear, friction, or blunt force, causing a separation of skin layers

Adhesive tape used to secure endotracheal tubes and protect eyes while under anesthesia can cause skin tears during tape removal.

Elderly people and patients with delicate skin conditions are particularly vulnerable groups.

Patient positioning and length of surgery create additional challenges.

## **Skin Tear Studies and Classification**

The primary objective of the International Skin Tear Advisory Panel (ISTAP) was to develop a a quantifiable classification system for qualitative measurements to establish a common language for classification of skin tears.

The findings of their classification system have been further investigated and validated for intrarater reliability among healthcare providers.

## **Skin Tear Classification**

The International Skin Tear Advisory Panel (ISTAP) Skin Tear Classification System.



# Skin Tear Classification

Type 1: No Skin Loss

Type 2: Partial Flap Loss



Linear or Flap\* Tear which can be repositioned to cover the wound bed

Partial Flap Loss which cannot be repositioned to cover the wound bed

\*A flap in skin tears is defined as a portion of the skin (epidermis/dermis) that is unintentionally separated from its original place due to shear, friction, and/or blunt force. This concept is not to be confused with tissue that is intentionally detached from its place of origin for therapeutic use e.g. surgical skin grafting.

## **Comparison of Medical Adhesive Tapes**



# Which Tape Best Prevents Skin Tears in Routine Anesthesia Procedures? Melanie Mims, Student Anesthesiologist Assistant Nova Southeastern University-Jacksonville

Type 3: Total Flap Loss



Total Flap Loss exposing entire wound bed

	3M Tape Options for Cons	ideration
HYPOALLERGENIC, LATEX FREE, PRESSURE SENSITIVE	<b>3M<sup>™</sup> Blenderm<sup>™</sup> Surgical Tape</b> <i>"Waterproof Plastic" Tape</i> Flexible, occlusive, transparent tape made from polyethylene film. For protecting sites from external fluids and contaminants.	Blenderm tape— clear, waterproof
	<b>3M<sup>™</sup> Micropore<sup>™</sup> Surgical Tape</b> <i>"Paper" Tape</i> Gentle, breathable tape with rayon backing. For general dressing applications and repeated taping on fragile, at-risk skin.	Micropore tape— gentle, breathable
	3M <sup>™</sup> Transpore <sup>™</sup> White Dressing Tape Gentle, breathable, multi-purpose tape with a rayon-polyester blend backing. Perforated for quick, bi-directional tear. Easy to handle with gloves. Holds well to dry or damp skin. For securing dressings, tubing, and devices. Great standardization tape.	Transpore White tape— standardization tape
	<b>3M<sup>™</sup> Transpore<sup>™</sup> Surgical Tape</b> " <i>Plastic</i> " <i>Tape</i> Transparent, perforated polyethylene film with bi-directional tear. Easily tears into very thin strips. For securing tubing and dressings that need to be monitored.	<b>Transpore tape</b> — clear, easy bi-directional tear
	3M <sup>™</sup> Durapore <sup>™</sup> Surgical Tape "Silk-like" Tape High strength, conformable, taffeta-backed tape with convenient bi-directional tear. Adheres well to dry skin. For securing bulky dressings, heavier tubing and small splints.	<b>Durapore tape</b> — strong backing, high adhesion to dry skin
	3M <sup>er</sup> Microfoam <sup>ere</sup> Surgical Tape "Foam" Tape Highly conformable, water resistant, closed cell foam tape that stretches in all directions. For compression applications and securing dressings in challenging areas.	<i>Microfoam tape</i> — compression, stretch, water resistant
	3M <sup>es</sup> Medipore <sup>es</sup> Family of Soft Cloth Surgical Tapes Soft, gentle, breathable, conformable tapes in easy tear, perforated rolls. No liner or scissors needed. Excellent cross and diagonal stretch. Medipore H tape has stronger adhesion, yet is gentler for repeated taping. For comfortable dressings and securing over areas where skin may stretch.	<i>Medipore family of tapes</i> — soft, comfortable, stretch
	3M <sup>™</sup> Cloth Adhesive Tape "Latex Free Cloth" Tape High strength, cotton-backed tape with bi-directional tear. Unlike most "cloth adhesive" tapes, this tape is breathable, hypoallergenic, and latex free. For securing medical devices and light immobilization support.	Cloth adhesive tape— breathable, strong, high adhesion, latex free

## **Methods and Results**



Which tape had decreased incidence of skin injury and higher patient satisfaction?

Can the results of the 3M tape study be further validated using the ISTAP classification system?

Would other tapes yield similar findings?

Can these methods and findings be generalized to other common procedures in the OR?

Would patients with a prior history of skin tears present with similar findings?

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### **Discussion Questions**

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