Why Medical Tape Matters:
The surprising role tapes play in patient outcomes and experiences.
Filling the bins of every supply room and carried into virtually every patient room is one of the oldest, most widely-used medical technologies – **medical tape**.

Training on how to properly use medical tape doesn’t get a lot of attention during nursing school – if at all. Throughout care settings there is a perception that “tape is tape,” that there isn’t much to it. And as long as it sticks and does its job, there really isn’t a need for more understanding, right? Actually, there is much more to medical tape than you may think, and its implications to the care you provide can be significant.
Clinicians say tape matters, but most haven’t received training on how to properly use it.

Nearly 3 in 4 clinicians said medical tape plays a critical role in providing high-quality care.¹

69% of clinicians use medical tape multiple times per day.¹

But only 38% of clinicians have received proper training.¹
The medical adhesives you select, as well as how you apply and remove them from your patient’s skin, can have a serious impact, not only on clinical outcomes and costs, but also on patient experience. In fact, a recent survey that polled more than 550 nurses about medical tape usage revealed that the tape you use can actually make or break the trust between you and your patient.1

In 2018, a survey was conducted to learn about the utilization of medical tape.

We know you take the responsibility of building trust with your patients very seriously. And it’s time to take a serious look at how tape selection may impact the quality of care you provide. Here, we’ll uncover and address gaps in understanding medical tape’s important role in patient care, including:

- Identifying how tape-related decisions can impact the patient experience
- Acknowledging the potential consequences of improper tape selection and use
- Recognizing the influence of “securement science” on adhesive innovation and quality
- Discovering the importance of proper tape selection
- Exploring how medical tape training can enhance all your patient encounters

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563 study participants

Roles
- General floor nurse
- Wound care nurse
- Specialist roles (ICU, critical care, IC/IP nurse, pediatric nurse, quality officer)

U.S. geography

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So why does tape matter?

Medical tape serves many important purposes in care delivery. Adhesive materials hold breathing tubes in place, secure intravenous lines and help people manage post-operative drains, ports and other devices. If not safely secured, these devices may become dislodged or pose the risk of infection, significantly impacting the quality of care the patient receives.

Additionally, tape matters because skin matters. As the body’s largest organ, skin is critical to the maintenance of our bodies and our overall health. When skin is damaged, it can negatively impact our physical and psychological health.²,³

It isn’t uncommon to hear the story of the pediatric cancer patient who tells their parents they’d rather be poked with a needle than have tape removed from their skin to access a port. The chemotherapy patient who must delay critical treatment because the removal of medical tape caused a skin injury that must heal before treatment can resume. The upset family members of an unconscious patient whose breathing tube became dislodged because the tape used to secure it had inadequate adhesion or was improperly secured.

Patient experiences like these are all too common and chip away at the foundation of patient trust – faith in their clinician’s ability to diligently care for them without causing harm.

And while these tape-related scenarios may be unfortunate and unintended consequences of providing care, they shouldn’t be. Protecting patients from negative tape-related outcomes requires a comprehensive framework, which should include proper adhesive selection and safe adhesive securement to the skin.
Clinicians see the connection between tape and skin issues, and change their behavior as a result.

- 64% of clinicians said injuries caused by medical tape are serious issues.
- 55% reported they’ve had patients develop skin issues as a result of improper application or removal of medical tape.
- 76% of clinicians said they take extra precautions when removing medical tape due to skin-related injuries patients have experienced in the past.
When tape is improperly selected, applied without the proper protections such as skin barriers, repeatedly changed, left on too long, or removed too quickly, it may cause a Medical Adhesive-Related Skin Injury (MARSI). Skin tears, skin stripping and tension blisters are common but avoidable examples of MARSI. MARSI is not only painful but can increase the risk of infection and delay healing – all of which can reduce a patient’s quality of life.

According to the medical tape survey, most respondents widely recognize that MARSI is a painful problem and believe it can be avoided. They also state that not all medical tapes are created equal and selecting, applying and removing medical adhesives properly can help protect against MARSI. And, they seek better access to information, training and support to make the best choice for their patients.

Tape shouldn’t interfere with the patient relationship or get in the way of doing the important, life-saving job every day. In fact, proper tape use should help enable a positive clinical outcome and patient experience.

The best way to prevent skin injuries is to properly select, apply and remove medical tapes. While a majority of nurses don’t know how to correctly use medical adhesives to prevent MARSI, 65 percent of respondents said they are interested in receiving more formal training on medical tapes.

**MARSI is a common occurrence.**

For every 100 patients who receive a medical tape application,

55 treatments for MARSI will be needed.
81% of clinicians rated the perceived severity of MARSI as at least a 7 out of 10, yet 51% of nurses don’t know how to diagnose it.¹

The good news? 77% of clinicians believe medical tape injuries can be avoided.¹
To succeed in maintaining patient trust, there must be trust that the adhesive selected will work, especially in critical applications and challenging conditions. Building confidence with medical tapes starts with having a basic understanding of securement science.

As a living, breathing organ, skin sweats, stretches and grows hair. It can behave differently based on age, race, diet or medical condition. Our skin is also constantly changing, presenting a new surface as it gets rid of irritants, heals itself and pushes old cells out of the way to make room for new ones.

Adhesive technology and the science of sticking-to-skin have seen significant advances in recent years thanks to an increased focus on patient skin management. Clinicians are starting to take a skin-first approach to prevent healthcare-acquired skin injuries and infections. This important shift has spurred innovation that has led to new tape applications specifically designed to help enhance clinical outcomes and patient safety.

Recent improvements and innovations:

- Breathability
- Wear time
- Flexibility
- Ability to stick in difficult conditions like hairy or sweaty skin
- Ease of use

Ongoing advancements in medical adhesive technology means more tape options that perform better and address the unique patient needs encountered every day. It also means there are now hundreds of SKUs of tapes available across the market, making the process of picking the right tape for the job increasingly more challenging.
When selecting the right tape for a procedure, what tape performance criteria are most important for that individual patient’s needs?

Care providers don’t want to choose between clinical effectiveness and patient comfort, but when these two needs are out of balance, there’s a risk of losing patient trust and well-being – and potentially causing skin damage.

For some, this conflict arises nearly every time medical tape is selected, but it doesn’t have to. It’s possible to strike the right balance by using high-quality tape from manufacturers that leverage the science of sticking-to-skin and rigorous research to engineer tapes for specific applications.

When the wrong tape for the application is selected, it’s more likely to fail in its performance or cause the patient pain upon removal. It is critical to maintain skin integrity and ensure safe securement to help prevent unintended patient complications like extubations, infections or MARSIs. It’s important to note that there are high-quality tapes available that can provide adequate adhesion without sacrificing patient comfort, safety or the patient relationship.

The number one consideration when selecting a medical tape is the job that needs to be done. When it comes down to it, most facilities only need four types of tape to cover every securement task – extra gentle, multi-purpose, flexible and high-adhesion. Streamlining tape SKUs can help you quickly choose the right tape for the right job and reduce inventory costs.

61% of clinicians say their current medical tapes don’t meet the needs of patients with fragile skin.6

Adhesion matters, but so does ease of use.

What tape attributes are most important to clinicians?

1. Secure adhesion
2. Ease of removal
3. Flexibility

But not all medical tapes are created equal. 75% of clinicians agree that there are differences in quality among medical tape brands.1
Selecting the right tape for the job.

The science of skin management and sticking-to-skin is multifaceted and needs to be considered when selecting tape. According to the “Medical Adhesives and Patient Safety: State of the Science” consensus document published in the Journal of Wound Ostomy Continence, you should consider the following factors when selecting an adhesive product.

1. Intended use of the tape
The foremost patient consideration is the intended use or purpose of the tape (i.e. securement of a critical device, non-critical device or dressing, wound closure, etc.). Depending on the application, clinicians must balance the need for adhesion and the need for gentleness.

2. Anticipated wear time
The intended use of the tape directly influences anticipated wear time. Some tape materials are better suited for either short- or long-term wear, meaning clinicians should consider the trade-offs between tapes with plastic backing versus paper or cloth backing.

3. Anatomical location
If the location has potential for skin distention or movement (i.e. areas with joint articulation or in cases of edema), the risk of adhesive-related skin damage may be reduced by using tapes that stretch and flex with the body.

4. Ambient conditions present at the site
Consider whether the area is smooth or contoured, subject to movement or friction, or exposed to moisture, perspiration, humidity, exudate and/or body fluids. Some tapes are designed with these challenging conditions in mind.

5. Patient risk assessment
Consider the patient’s age, race, preexisting skin conditions, allergies, comorbidities and overall health that may impact adhesion performance.

Clinicians want more training and education.

Even though the tape selection process can be daunting, care providers want to do what is best for their patients. Since tape selection, application and removal are not covered extensively in nursing school, there is likely significant opportunity for ongoing training to help protect patients from skin injuries and tape-related complications. Education and training can empower medical tapes to be used to their full potential and help prevent skin injuries.

61% of clinicians said nurses should receive specialized training on how to properly use medical tape.1

65% of survey participants were interested in receiving education on proper tape application and/or MARSI.1
As busy, yet dedicated healthcare professionals, committing to further tape training will provide many opportunities to enhance the care provided. And science-based medical tape education is available to help do just that. To learn more about different types of MARSI, how to identify who’s at risk and how to reduce that risk through a variety of educational assets, visit 3M.com/MARSI.

**Condition resources:**

CE accredited webinar on “Recognizing and Preventing MARSI” through 3M’s online educational platform 3M™ Health Care Academy

- Video series that addresses common myths of medical adhesives and details proper adhesive handling and selection

**Selection resources:**

- One-page “Proper Tape Application and Removal Guide”
- One-page “3M Medical Tapes Selection Guide”

**Implementation resources:**

You are empowered to make changes about how you value and leverage medical tape for your patients. If you would like additional support auditing your facility’s current tape usage, including tape waste, clinical demands and purchasing process, sign up for a free Tape Optimization Program Evaluation at 3M.com/TapeOp. And if you would like to coordinate an in-person tape training session with one of 3M’s clinical outcomes specialists at your facility, contact MedicalTapesTraining@mmm.com.
About 3M Medical Tapes.

Science and innovation are cornerstones of 3M’s business, but they only matter if we can use what we’ve learned and apply it to real life to make healthcare jobs easier and patient lives better. We understand the intersection of adhesive technology and skin health. We invented the category of gentle-to-skin medical adhesives more than 50 years ago, and we’ve been innovating ever since to improve the design and formulation of adhesive products to help you realize better patient outcomes. We also understand the importance of the patient-clinician relationship and work to provide solutions that strengthen that bond.
3M 2018 Medical Tape Market Research
Methodology: Online
Timeframe: January 2018
Sponsor: 3M; 3M was NOT identified as the study sponsor as not to bias results
Database: Dedicated consumer panel from a third-party partner and 3M database
Completed Interviews: 563
Statistical Accuracy: All statistically significant results were reported at the 95% confidence level
Qualified Respondent: U.S. clinician that provides direct care to patients
• Specifically, general floor nurse, wound care nurse, nurse with a specialist role (i.e. ICU, critical care, IC/IP nurse, pediatrics, quality officers)
• Uses medical tape at least once weekly

References
13M 2018 Medical Tape Market Research. On file at 3M.
6Manriquez, S., BSN, RN, WOCN, Loperfido, B., MA, RN, NP, & Smith, G., BS. (2014). Evaluation of a New Silicone Adhesive Tape among Clinicians Caring for Patients with Fragile or At-Risk Skin. Advances in Skin and Wound Care, 27(4).