

# WEAR TIME –

## Addressing Factors That Impact Long-Term Dressing Application



# INTRODUCTION

*“Medical adhesives play a major role in dressing security and improving wear time.”*

The length of dressing wear time can have a significant impact on outcomes, patient comfort and health, as well as costs of care related to time and supplies. Dressings remaining in place as recommended and prescribed improves efficacy by leaving the wound and the healing process undisturbed. Each time a dressing is removed, healing stops and it can take as long as five hours for the process to begin again. Dressings that remain securely in place improve maintenance of a moist wound healing environment, while managing exudate.

Security of the dressing is important in preventing cross contamination issues, which can lead to infection and lengthening of healing times.<sup>1</sup> Longer dressing wear times also reduce costs by reducing the number of dressings needed and nursing care time, which is the most expensive part of wound care.

## The role of medical adhesives

Medical adhesives play a major role in dressing security and improving wear time. In addition to remaining securely in place, dressings need to be easily removable in order to reduce periwound trauma or medical adhesive-related skin injury (MARSI). The most important step in improving wear time and skin protection is the appropriate dressing preparation of the wound site prior to application. The selection of a durable and secure medical adhesive product that offers gentle removal is also essential. These aspects are especially important for patients that are at higher risk for skin stripping, skin tears, or are sensitive to medical adhesives.

# FACTORS INFLUENCING DRESSING WEAR TIME

Determining a dressing's effective wear time requires the analysis of several factors. Dressings must remain attached to the skin, continue to provide complete coverage of the wound area, be comfortable, and not allow for leakage. Failure in any of these areas generally necessitates changing of the dressing.

*“Dressings must be adhered securely in order to maintain their effectiveness and provide for rapid wound healing.”*

**Adhesion:** In addition to skin preparation, another important component of wear time – and the most common point of failure – is continued adhesion. Dressings usually fail when the medical adhesive with which they are attached loosens. This can cause the dressing to begin to peel, migrate, or fall off. Dressings must be adhered securely in order to maintain their effectiveness and provide for rapid wound healing.

**Comfort:** Dressings can become uncomfortable when the adhesive induces sensitization. This reaction may also increase moisture in the wound environment, causing dressing adhesion to weaken. It is important for caregivers to choose an option that minimizes this effect, provides a long lasting comfortable experience and allows for comfortable removal when necessary.

**Wound environment:** Dressings should generally maintain a moist environment while managing exudate. A common point of failure occurs when the dressing begins to loosen and allows for leakage or the ingress of foreign substances. This can lead to suboptimal wound healing, infection, and discomfort for patients.<sup>1</sup>

# THE VALUE OF SECURE DRESSINGS

*“...as many as 30% of wounds become infected at some point before healing.”*

Secure medical adhesives play a major role in determining the wear time and effectiveness of a wound dressing. It is important for adhesives to be strong, long-lasting, and allow for easy removal when necessary. These substances must be able to maintain their strength, even in the presence of a moist environment, and should allow for little to no leakage during the duration of the application. By choosing the right adhesive for a wound dressing, health care professionals can help reduce costs, improve patient outcomes, and help wounds heal more effectively.

## Secure dressings are more effective

One of the primary goals of wound care is to decrease the risk that the wound becomes infected. However, despite these intentions, as many as 30% of wounds become infected at some point before healing.<sup>4</sup> This can lead to an increase in the time it takes for the wound to fully heal and result in other potentially dangerous complications.<sup>1</sup>

Peeling at the corners could increase the likelihood of an infection, particularly in cases where the patient suffers from incontinence. If a dressing does not fully cover the wound, it may be exposed to foreign substances. Fecal matter and urine can introduce bacteria into the wound that can lead to infection or other complications. Prolonged exposure to feces can also cause incontinence-associated dermatitis, further damaging the skin, particularly in older populations.<sup>5</sup>

Another major problem in wound care is ensuring compliance in outpatients. When a patient gets home, they may be more active and the dressing may be exposed to non-ideal conditions. More secure dressings could increase the length of time dressings remain on outpatients in trying conditions, further increasing their effectiveness.

## Secure dressings reduce wasted time and money

Treatment of chronic non-healing wounds in the United States costs an estimated \$50 billion each year. Wound incidence is increasing at a rate of 10% each year, so these costs are only expected to grow.<sup>2, 3</sup> The two major contributing factors to this expenses are the costs of the dressings themselves and the man hours nurses must spend on wound care.

*“More secure dressings that required fewer changes could significantly reduce the time nurses must spend on wound care...”*

Nurses spend a considerable amount of time cleaning, dressing, and caring for wounds. One recent study found that in a community of 288,000, with a wound prevalence of 2.4 for each 1000 residents, the equivalent of 57 full-time nurses was required for dressing changes alone.<sup>4</sup> More secure dressings that required fewer changes could significantly reduce the time nurses must spend on wound care, allowing them to focus on other patient concerns and reducing costs. The wound dressings themselves can also be a considerable expense, and can cost from \$10 to \$20 daily per dressing, or even more depending on the type of dressing and size of wound.<sup>6</sup> Over time, this expense can amount to a considerable sum, significantly impacting the facility's finances and adding to the overall cost of treatment. A dressing that stayed secure and did not need to be replaced as often could help reduce the number of dressings that needed to be purchased.



# HOW HY-TAPE CAN HELP



*“Despite its ability to stay secure even in the most trying circumstances, Hy-Tape is gentle and easily removed.”*

Hy-Tape is the leading surgical adhesive, helping to make wound dressings more secure, more effective, and less costly. By framing or covering dressings with Hy-Tape, nurses can reduce the risk of peeling corners and create a longer lasting dressing that will stay on for the entirety of the prescribed time.

**Hy-Tape makes dressings more secure** - Hy-tape is very secure and lasts up to seven days. That means that it can help dressings stay on for longer. It is also waterproof, so it is not affected by drainage fluids, urine, feces, or other liquids that might normally compromise the integrity of the dressing.

**Hy-Tape protects the wound** - Hy-tape does not break down and does not allow fecal matter and urine to infect the wound. It is also completely washable, allowing foreign substances to be cleared away without damaging the dressing. This could help reduce the risk of infection and may even help wounds heal faster in certain conditions. Hy-Tape has demonstrated UPF 50+ protection, providing further protection to vulnerable wound sites that may receive sun exposure.

**Hy-Tape is gentle** – Despite its ability to stay secure even in the most trying circumstances, Hy-Tape is gentle and easily removed. It will never cause new wounds or further damage the existing wound. Its zinc-oxide based adhesive is soothing to delicate skin and prevents irritation and skin breakdown.

**Hy-Tape is nurse approved** – In a recent study involving patients with Stage II, III, and III pressure injuries treated with a hydrocolloid dressing secured by Hy-Tape, Hy-Tape was given an “Excellent” rating by nurses. They cited its strength, gentleness, and easy application as primary reasons for the high rating.<sup>7</sup>

**To learn more about how Hy-Tape can help make wound dressings longer lasting and more effective, contact one of our representatives or [visit us online today](#).**

## REFERENCES:

- [1] Guo S, DiPietro LA. Factors Affecting Wound Healing. *J Dent Res*. 2010 Mar;89(3):219-29.
- [2] Fife CE, Carter MJ, Walker D, Thomson B. Wound Care Outcomes and Associated Cost Among Patients Treated in US Outpatient Wound Centers: Data From the US Wound Registry. *Wounds*. 2012 Jan;24(1):10-7.
- [3] Cuddigan J, Berlowitz D, Ayello E. Pressure Ulcers in America: Prevalence, Incidence, and Implications for the Future: An Executive Summary of the National Pressure Ulcer Advisory Panel Monograph. *Adv Skin Wound Care*. 2011 Jul-Aug;14(4):208-15.
- [4] Lindholm C, Bergsten A, Berglund E. Chronic wounds and nursing care. *J Wound Care*. 1999 Jan;8(1):5-10.
- [5] Faecal Incontinence and Its Effect on Wound Care. *Continence Essential*. Volume 1 2008. [http://www.continence-uk.co.uk/essentials\\_2008/Continence\\_Essentials\\_2008\\_Faecal\\_Incontinence\\_Wound\\_Care.pdf](http://www.continence-uk.co.uk/essentials_2008/Continence_Essentials_2008_Faecal_Incontinence_Wound_Care.pdf)
- [6] Comparison of homecare costs of local wound care in surgical patients randomized between occlusive and gauze dressings. Ubbink DT1, Vermeulen H, van Hattem J. *J Clin Nurs*. 2008 Mar;17(5):593-601. doi: 10.1111/j.1365-2702.2007.02032.x.
- [7] Securing Hydrocolloid Dressing. Hy-Tape. <http://www.hytape.com/pdfs/HT-Case-Studies-Ostomy-Wound%20Care2.pdf>. Accessed March 2017.