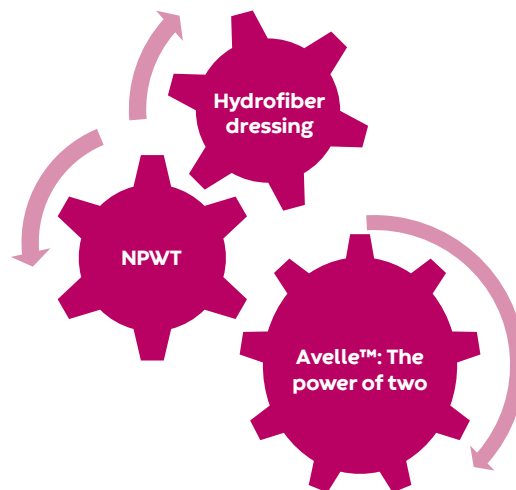


Interested in reducing SSI? Change your dressing. Get closure.

More than the sum of the parts: Examining the synergy between NPWT and Hydrofiber® technology to explain that the Avelle™ system has got you covered

The burden of hard-to-heal wounds is immense in Australia equivalent to more than AUD \$3.5 billion, approximately 2% of national health care expenditure attributable to these types of wounds ⁽¹⁾.



Part 1: Hydrofiber®: the ideal dressing

It is well known that wound healing is enhanced when the appropriate dressing regimen is instigated ⁽²⁾. The ideal wound dressing is one that creates the perfect microenvironment needed to support wound healing ⁽³⁾. This includes the dressing's ability to remove excess exudate, maintain high humidity at the wound-dressing interface, provide thermal insulation, protect against secondary infection and allow atraumatic dressing changes (figure 1) ⁽³⁾. Additionally, it is important to assist healing and reduce the risk of infection, that the wound dressing is in 'intimate contact' with the wound surface, eradicating any 'dead space' or free fluid on the surface of wound ^(3,4). The barrier integrity of periwound skin is highly susceptible to damage from wound fluid, which contains tissue-destructive enzymes, and inflammatory proteinases ⁽⁵⁾.



Figure 1: The features of the ideal wound dressing.

The AQUACEL™ dressing range with Hydrofiber® technology is an ideal option to facilitate wound debridement. The Hydrofiber® technology contained in the AQUACEL™ dressing range ensures that a moist wound environment is maintained while excess exudate is absorbed and locked into the dressing rather than wicking onto the healthy skin around the wound ⁽⁵⁾. The dressing intimately contours to the wound bed, enhancing conformability reducing dead space and enabling autolytic debridement ⁽⁶⁾.

Part 2: Portable Negative Pressure Wound Therapy (NPWT)

In recent years adjunctive technologies have been used in conjunction with dressings to assist closure in hard to heal wounds. Argenta and Morykwas first described the use of mechanical suction or negative pressure applied to a wound in the form of foam, sealed against non-healing skin in 1997 ⁽⁷⁾. This technology was found to promote granulation tissue and wound healing ⁽⁷⁾.

Negative pressure has come a long way since 1997, and now portable negative pressure devices which are discreet, convenient, and non-inferior to bulkier cannister systems are commonly used for low to moderately exuding wounds ⁽⁸⁾. Importantly portable NPWT can assist stabilisation of the wound environment via the promotion of angiogenesis, epithelialisation, fluid and oedema removal, thus expediting wound healing ⁽⁹⁾.

The sum of the parts: Hydrofiber® dressings with Avelle™ NPWT technology...we've got you covered

Torbrand et al. highlighted the importance of the wound interface layer, finding that negative pressure only worked where the wound was in direct contact to the interface ⁽¹⁰⁾. Avelle™ has a unique conformable wound interface, made from AQUACEL™ containing Hydrofiber® technology. Unlike other negative pressure systems, Avelle™ provides not only convenient, portable negative pressure, but also a highly conformable wound dressing that is able to fill dead space, maximise wound contact and promote autolytic debridement.

The R&D team at Convatec understood the importance of the wound-interface layer contact when designing the Avelle™ negative pressure devices. Our Avelle™ dressings are sold separately to the pump, potentially reducing costs. Unlike other disposable negative pressure systems available on the market (our competitors systems,) it is not necessary to use an additional dressing to attain optimal wound contact and facilitate autolytic debridement -the Avelle™ system has got you covered!

Dressing Property	Avelle™	Other NPWT
Contains Hydrofiber® gelling technology for the essential intimate wound contact	✓	✗
Autolytic debridement through Hydrofiber® technology	✓	✗
Wicks vertically to protect the periwound skin from exudate damage	✓	✗
Dressing sold separately to the pump, enabling cost savings and reduced wastage	✓	✗

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