The principles that support the use of TNP have existed for thousands of years, the Chinese first used negative pressure to assist in extraction of wounds or to induce healing. However, the use of vacuum assisted closure (VAC) for wound closure was first described by Nielson et al in 1987. Since then VAC systems have been modified and improved to be able to adhere to the wound bed and thereby effectively reduce the size of wounds. The use of negative pressure has been shown to improve the rate of healing of chronic wounds (Mintz et al’s 1997 Cochrane Database of Systematic Reviews) and helps to maintain healthy granulation tissue which is required for successful wound healing (Mintz et al’s 1997 Cochrane Database of Systematic Reviews). The pressure difference is created by the application of the VAC therapy using an intermittent suction pump which create suction at the wound surface and thereby creating a negative pressure environment, this negative pressure is required to reduce bacterial proliferation in the wound (Thompson et al’s 2008 Cochrane Database of Systematic Reviews). The VAC therapy creates a method of controlling wound edge, ensuring the wound bed is in a clean state allowing keratinocytes to migrate and hence the regeneration of the epithelium. In the case of chronic wounds, it is important to keep the exposure of a wound to a minimum in order to prevent further damage to the wound bed and thereby promoting healing. Negative pressure wound therapy was developed in the 1980s by Nielson et al and they used a compression system to create negative pressure on the wound bed, this system was later improved by Peampion and later made into a vacuum system. The concept of negative pressure for wound closure was used to create the vacuum assisted closure system (VAC) (Mintz et al’s 1997 Cochrane Database of Systematic Reviews).

The Underpinning Theory

The principles that support the use of TNP have existed for thousands of years, the Chinese first used negative pressure to assist in extraction of wounds or to induce healing. However, the use of vacuum assisted closure (VAC) for wound closure was first described by Nielson et al in 1987. Since then VAC systems have been modified and improved to be able to adhere to the wound bed and thereby effectively reduce the size of wounds. The use of negative pressure has been shown to improve the rate of healing of chronic wounds (Mintz et al’s 1997 Cochrane Database of Systematic Reviews) and helps to maintain healthy granulation tissue which is required for successful wound healing (Mintz et al’s 1997 Cochrane Database of Systematic Reviews). The pressure difference is created by the application of the VAC systems using an intermittent suction pump which create suction at the wound surface and thereby creating a negative pressure environment, this negative pressure is required to reduce bacterial proliferation in the wound (Thompson et al’s 2008 Cochrane Database of Systematic Reviews). The VAC therapy creates a method of controlling wound edge, ensuring the wound bed is in a clean state allowing keratinocytes to migrate and hence the regeneration of the epithelium. In the case of chronic wounds, it is important to keep the exposure of a wound to a minimum in order to prevent further damage to the wound bed and thereby promoting healing. Negative pressure wound therapy was developed in the 1980s by Nielson et al and they used a compression system to create negative pressure on the wound bed, this system was later improved by Peampion and later made into a vacuum system. The concept of negative pressure for wound closure was used to create the vacuum assisted closure system (VAC) (Mintz et al’s 1997 Cochrane Database of Systematic Reviews).