

## IDEAS AND INNOVATIONS

# The DIY mini suction drain

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**Summary**—Using readily available materials, a versatile mini suction drain system can be quickly constructed.

### **Technique**

Winged needle infusion sets (Abbott Butterfly) are readily available in a variety of sizes. Nineteen Gauge is most commonly used with 30.5 cm of tubing length but 16 and 15 Gauge needles are also available. The Luer-Lock end is cut off (Fig. 1). Extra holes can be made using scissors or bone nibblers (Fig. 1). This end is then inserted into the wound (Fig. 2).

An assortment of multivial bottles with rubber bungs (20, 50 or 100 cc) are freely obtained in theatres (local anaesthetic, water for injection, anaesthetic induction agents) which can be vacuumed using a three-way tap and syringe (Fig. 3). In some hospitals, pre-vacuumed tube containers are used for blood sampling and these (10 cc) can also be utilised in this system.

The needle of the drain is then inserted into a vacuumed container (Fig. 4). Without dismantling the system, the bottles can be revacuumed at regular intervals with the syringe or changed using a new pre-vacuumed tube to monitor the drainage, if necessary.

### **Discussion**

This system has been used for many years in a variety of patients without any known complication. Its main use has been in paediatric cases, but it is suitable in hand and facial surgery. It is a cheap system that can be rapidly put together. The use of a butterfly drain has been described with the pre-vacuumed tube for a skin graft donor site dressing but not in wounds (Dewan *et al.*, 1986).

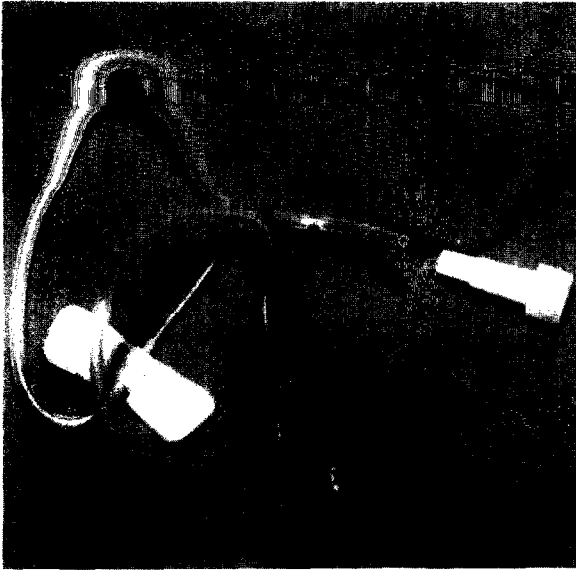


Fig. 1



Fig. 2



Fig. 3

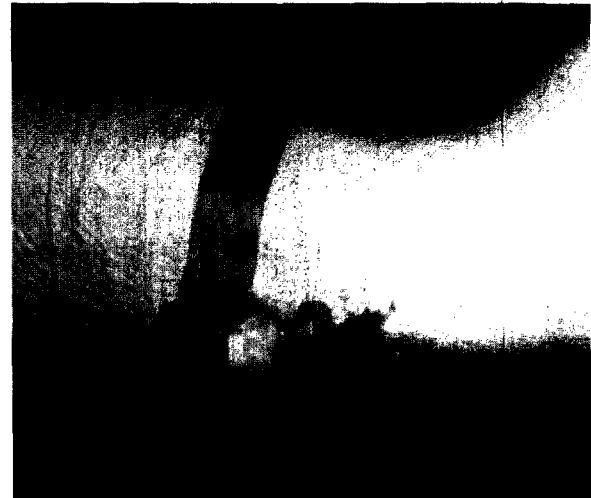


Fig. 4

Figure 1— A 19 Gauge butterfly with the Luer-Lock cut off. Extra side holes are made with bone nibblers. Figure 2—One end of the drain inserted into the wound. Figure 3—The readily available container with a rubber bung is being vacuumed. A three-way tap can be inserted to make this easier. Figure 4—The needle is inserted into the vacuumed bottle.

## Reference

Dewan, P. A., Packer, S. G. K. and Robinson, R. G. (1986). An alternative approach to skin graft donor site dressing. *Australian and New Zealand Journal of Surgery*, **56**, 509.

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