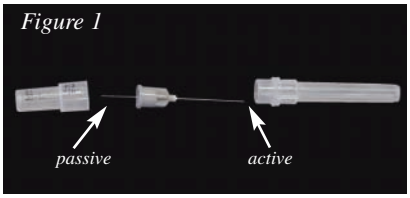
Disposable safety device prevents needle stick injury

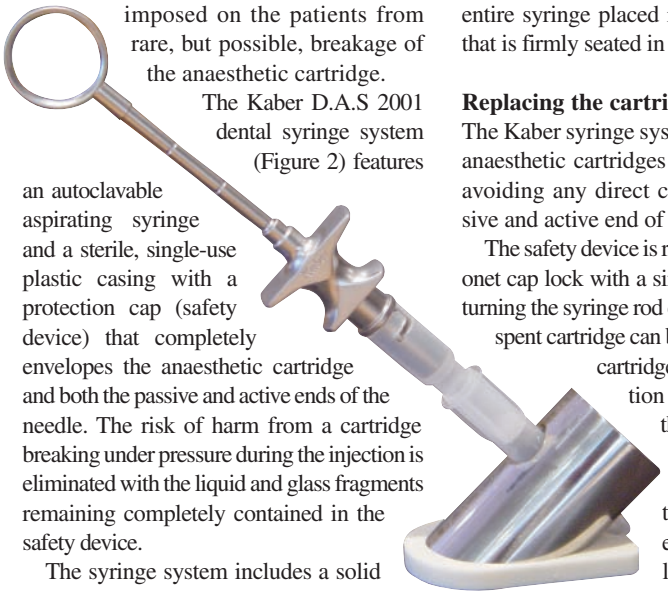
By Terri Slough, RDH

The primary cause of occupational exposure to blood borne pathogens is by injury from needle sticks or other sharp objects such as suture needles, scalpel blades, and sharp instruments. An unsheathed needle is essentially a loaded gun as most needle stick injuries occur when an unsheathed needle is placed with procedural instruments on the bracket tray or when dental healthcare workers (DHCW) attempt to recap* the active end (Figure 1) of the needle.



The risk of a needle stick and sharps injury with the traditional aspirating syringes extends to DHCW during the manual assembly and disassembly while reloading cartridges and at the completion of the dental appointment. In order to prevent injury the DHCW must keep their astute attention focused on handling the syringe harpoon, the integrity of the anaesthetic cartridge as well as the passive and active ends of the needle.

Kaber has introduced a new disposable safety device that significantly reduces the risk of needle stick and sharps injury to DHCW, as well as the risks imposed on the patients from rare, but possible, breakage of the anaesthetic cartridge.



The Kaber D.A.S 2001 dental syringe system (Figure 2) features an autoclavable aspirating syringe and a sterile, single-use plastic casing with a protection cap (safety device) that completely envelopes the anaesthetic cartridge and both the passive and active ends of the needle. The risk of harm from a cartridge breaking under pressure during the injection is eliminated with the liquid and glass fragments remaining completely contained in the safety device.

The syringe system includes a solid stainless steel syringe holder precisioned for optimal balance and one-handed control of the syringe, while also providing a recapping and safekeeping device.

Preparation of the syringe

The aspiration piston is a spiral corkscrew design (Figure 3) for a more perfect grip into the silicone treated rubber stopper of the anaesthetic cartridge as compared to the traditional harpoon style. The cartridge is locked on the aspiration pistol in a similar fashion to the placement of a screw-type light bulb.

The safety device is removed from its sterile blister-pack and fitted over the anaesthetic cartridge attached to the syringe. A bayonet cap locks the safety device to the syringe.

The protection cap is then placed into the syringe holder with a light twisting pressure locking it in place ready to receive the loaded syringe. Any kind of needle can connect to the universal thread hub on the safety device. Once the needle is firmly attached the active needle end can be exposed and the entire syringe placed in the protection cap that is firmly seated in the syringe holder.

Replacing the cartridge

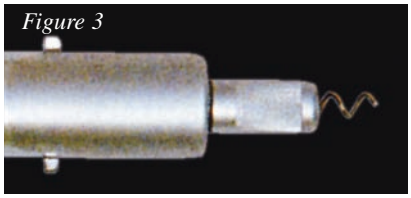
The Kaber syringe system makes reloading anaesthetic cartridges a safe procedure by avoiding any direct contact with the passive and active end of the needle.

The safety device is removed from the bayonet cap lock with a simply twist action. By turning the syringe rod counter-clockwise the spent cartridge can be removed and a new cartridge placed on the aspiration piston. Simply slide the loaded syringe into the safety device to engage the cartridge with the passive end of the needle and lock the bayonet cap.

Disassembling the syringe

The spent cartridge and needle will be disposed of as one unit by using a simple two-step technique. The protection cap must be seated tightly to the safety device, which is confirmed with an audible click.

First, disengage the cartridge from the aspiration piston by turning the syringe rod counter-clockwise. Second, unlock the bayonet cap to release the safety device, which contains the spent cartridge and needle and dispose in a designated sharps container.



It's all about safety

The Kaber aspirating syringe is uniquely designed to give the practitioner both a visual and tactile gauge on the amount of anaesthetic dispensed from the cartridge. The syringe rod features three notches that can be seen as well as felt during the delivery of the anaesthetic for a distinct advantage in controlling the quantity and speed of the injection.

The Kaber syringe system surpasses the traditional syringes with its speed and efficiency for carpule changes, high level of safety over recapping and disassembling, reduced risk of cross-contamination and the use of this syringe requires you to use the safety feature. The Kaber D.A.S. safety device can also be used with any intraligament syringe. Kaber designs and distributes adaptors to fit each model.

**The Infection Control Guidelines advocate that to prevent injury, needles should only be resheathed using an approved recapping device. In addition sharp instruments, which include anaesthetic syringes, must not be passed by hand between DHCW.*

The Kaber D.A.S syringe system is distributed by Gunz Dental Pty Ltd. Call 1800-025-300 or 0800-301-010 in New Zealand to place an order or request additional information.