

Sterilization of Projectile Syringes

THE USE OF projectile syringes (Cap-Chur Syringe, Palmer Chemical and Equipment Company, Atlanta, Ga.) to administer medication or immobilizing agents is a common procedure utilized in treatment of zoo specimens, animals in the wild, or difficult "domestic" animals. These syringes can be propelled by various means, e.g., CO₂ rifle, CO₂ pistol, powder-charged rifle, crossbow, or blowgun.

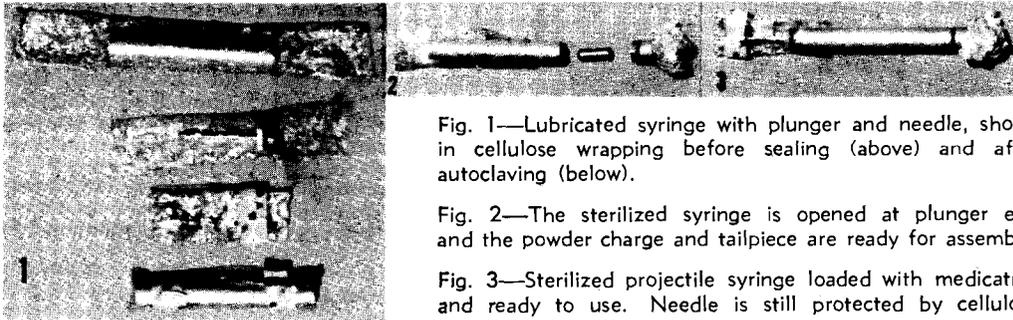


Fig. 1—Lubricated syringe with plunger and needle, shown in cellulose wrapping before sealing (above) and after autoclaving (below).

Fig. 2—The sterilized syringe is opened at plunger end and the powder charge and tailpiece are ready for assembly.

Fig. 3—Sterilized projectile syringe loaded with medication and ready to use. Needle is still protected by cellulose wrapper, which is removed just prior to use.

Sterility of the projectile syringe should be mandatory because of the potential spread of disease and abscessation at the injection site by the syringes. This report is concerned with a method of sterilization of projectile syringes, which has proved to be easy and satisfactory.

The rubber plunger is lubricated with silicone lubricant and placed in the metal syringe barrel. The plunger is pushed up and back several times to lubricate the barrel and then positioned about 1 cm. from one end of the barrel.

The lubricated syringe with plunger is placed in a clear, tubular, cellulose sterilizing wrapper (Rapitupe, Duxe Products, Cincinnati, Ohio). The needle is wrapped separately. The ends of the wrapper are folded over, sealed with sterilizer indicator tape and autoclaved for 20 minutes at 121 C. (Fig. 1).

To use the sterilized syringe, the plunger end of the syringe is exposed and the powder charge inserted into the plunger and then capped with the tailpiece (Fig. 2). The cellulose wrapper is then removed and the syringe is filled with the appropriate medication. The wrapper containing the needle is opened at the screw end and attached to the syringe barrel, keeping the needle covered until the syringe is ready to be used (Fig. 3).

Autoclaving of the syringe and plunger has no effect on the lubricant and the plungers are freely movable following sterilization.—*Mitchell Bush, D.V.M., and Clinton W. Gray, D.V.M., National Zoological Park, Washington, D.C. 20009.*