

**STANDARD OPERATING PROCEDURES**  
**DIVISION OF COMPARATIVE MEDICINE**  
**UNIVERSITY OF SOUTH FLORIDA**

SOP#: 1161.2

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Page 1 of 2

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<b>TITLE:</b>	<b>Germinator™ 500 Glass Bead Dry Sterilizer</b>
<b>SCOPE:</b>	Animal Care Personnel
<b>RESPONSIBILITY:</b>	Facility Manager, Professional and Administrative Staff
<b>PURPOSE:</b>	To Outline the Proper Procedures for Use and Maintenance of a Germinator™ Glass Bead Sterilizer

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**I. PURPOSE**

1. This procedure outlines the use and maintenance of the Germinator™ Glass Bead Sterilizer used to sterilize the tips of metal surgical instruments.

**II. RESPONSIBILITY**

1. The Facility Manager ensures that equipment is appropriately cleaned, maintained in good working order, and available for research personnel as requested.
2. The veterinary professional, administrative, and managerial staffs ensure that all research and technical staff using this equipment are adequately trained and experienced to perform instrument decontamination using a glass bead sterilizer.

**III. EQUIPMENT USE**

1. Turn power switch "ON" and wait until the "STERILIZE" light is illuminated. It will take approximately 30 minutes for the "STERILIZE" light to illuminate, indicating that the beads have reached a temperature of 450°F (233°C). Glass beads will continue to heat up to approximately 500°F±15°.
2. **Sterilize only clean and dry metal instruments.** Remove all debris from instruments prior to inserting into the glass beads. Any matter left on the instruments may get baked on and will be difficult to remove. Instruments with visible debris will take longer to sterilize, and beads may adhere to the wet/contaminated portions of the instruments.
3. Gently **insert instrument at least one inch into the beads.** The top ½ inch of beads may not be within the recommended temperature for proper decontamination. Therefore, to decontaminate one inch of an instrument, it must be inserted 1½" into the beads.
4. One **small instrument** (e.g., small scissor, scalpel, forceps) **should be allowed to stand at least 15 seconds** before it is removed. **Larger instruments** (e.g., operating scissors or bone instruments) should stand **for at least one minute.** As a general rule, **the larger the instrument, the longer the time required to process.** If sterilizing more than one instrument at a time, it is recommended to double the decontamination time. Proper decontamination cannot be assured if the glass bead well is overloaded.
5. Instruments can remain in the glass beads longer than the recommended time; however, they may become very hot and could degrade metal properties of some instruments.

Care should be taken to ensure operator is not injured/burned while handling overheated instruments.

6. **Allow instruments to cool before using. (Failure to do so can result in severe burns and tissue damage to the animal patient).**
7. Ensure glass beads are not adhered to the instruments when removed.
8. Stir glass beads occasionally.
9. The Germinator™ can be left on all day without overheating.
10. To avoid burns from spilling hot beads, do not move the Germinator™ while it is turned on or when beads are still hot.
11. **Do not use hollow metal instruments in the Germinator™.** Heating hollow metal instruments that are not rated for use above 300°F may cause them to explode and spray hot beads.
12. When using the bead sterilizer to sterilize instruments between animals undergoing aseptic surgery, **initial instrument sterilization should be performed using an autoclave** in accordance with **SOP #1006**.

#### IV. MAINTENANCE

1. Periodically inspect unit and power cord for wear.
2. Confirm unit reaches proper temperature **at least annually** using a certified thermometer. Unit should reach 500° F ± 15° when stabilized (i.e., approximately 45-60 minutes).
3. Memorialize the certification by placing a label on the unit with date of certification.

#### V. TROUBLESHOOTING

1. Glass beads should last about six months under normal use. Inserting only instruments that are dry and free of tissue will help extend the life of the beads. Replace glass beads when level is low.
2. Invert and shake the Germinator™ to remove glass beads that have fallen into the housing.
3. Refer to the manufacturer's operation and maintenance manual.

#### VI. REFERENCES

1. Manufacturer's manual.

Approved:

Date: