



Von Hagens Plastinated Specimens Storage, Care, Repair and Disposal Policy and Procedure

General Information

Plastination is the scientific process invented by Dr. Gunther von Hagens for preserving human tissue, organs and whole bodies by removing water and fat from the tissues and replacing them with certain polymers and resins, thus preventing decay.

The absence of liquid in the specimens prevents decomposition or bacterial growth. Unlike other anatomical specimens, Plastinates will never need to be re-treated and will never have a risk of drying out or attracting pests. Plastinated specimens are therefore permanently preserved and if properly cared for they can be utilized for anatomical teaching for an extensive period of time.

Storage and Care

1. Van Hagens high-quality plastinated specimens are, in principle, everlasting if treated with appropriate care. Silicone specimens are genuine, durable, lifelike, dry, odorless and flexible. They can be used for teaching purposes for a very long time, but it is important to handle complex nerve and muscle structures with great care.
2. Hands should be washed and exam gloves donned prior to handling any plastinated specimens.
3. Puncturing with hard materials / instruments should be avoided, including poking with fingernails. Puncturing and prodding can permanently damage specimens.
3. Fine dissection and dividing of structures (such as separate organs, complex of organs, or body parts) make the specimens very informative. Careful handling of the specimen is required. **Do not try to bind, pull, move or divide the structures or the body parts with hands.**
4. Use caution when packing and unpacking specimens. Proper supporting tools for carrying (e.g. stands, rings, etc.) are supplied with specimens.
5. **During teaching courses use laser pointers or soft rubber pointers to illustrate the structures.**
6. Pipe cleaners can be used to point out specific structures and can be wrapped gently around structures to test student's knowledge. Do not use pins or needles.
7. The Plastinates can be stored in free air, indefinitely, as long as the relative humidity of the air ranges below 50% and the temperature ranges between +5 °C to +35° C. Temperatures higher than +35° C can cause leakage of excess uncured silicone from the core of the specimen. If leakage occurs, please inform us.
8. Untrained staff are not allowed to touch the plastinated specimens.
9. Extended exposure of the specimen under direct UV light should be avoided. After use, specimens should be returned and stored in their designated cabinet in DCIH 312.

10. To remove dust from the surface of plastinated specimens, a hand duster or pressurized air may be used. Care should be taken with small nerves and arteries, as these are very fragile and can easily be broken. An alternative would be to gently wipe the surface with water and a small amount of dish soap. A normal (soft) toothbrush or a microfiber cloth may be used with the soap and water to reach deep crevices.

Cleaning of Plastinated Specimens

Tools: duster, soft toothbrush, microfiber cloth, water, dish detergent

1. For dust – use duster to gently wipe down specimen
2. For cleaning – add a couple drops of dish detergent to water, use microfiber cloth to wipe down specimen. Be VERY careful on fragile areas (nerves, veins, etc.) A soft toothbrush can be used for hard to reach places. Rinse with water. Specimen may be left for 2 – 3 days to air dry or use air compressor (low pressure) to blow off water.
3. Use wet microfiber cloth to clean dust off of the steel stands. Dry with paper towel. WD 40 can be sprayed onto a microfiber cloth to polish steel stands. Dry with paper towel.

See video for demonstration: [Silicone plastinates | \(vonhagens-plastination.com\)](https://www.vonhagens-plastination.com)

Repair of Plastinated Specimens

1. Superglue (Pattex brand) can be used to repair small structures (arteries, veins, nerves).
 - a. Apply glue to area that needs repair. Affix the small structure to appropriate placement and secure with a needle for 10 minutes or until glue is dry.
2. Silicone glue (Wurth brand) can be used to repair larger structures (muscles). See video for product recommendation.
 - a. Scratched tendon – use knife to remove broken fibers, then apply silicone glue.
 - b. Muscle – silicone glue can be used to repair muscles. Secure with needs, wait 24 hours before removing needles.



See video for demonstration: [Silicone plastinates | \(vonhagens-plastination.com\)](https://www.vonhagens-plastination.com)

Method of Disposal of Plastinated Specimens

Ethical standards must be upheld while dealing with genuine human remains. If specimens are no longer needed, they should be cremated and buried.

Chemically silicone plastinated specimens contain about 70% polymerized siloxane. The remaining matter is dry organic matter of human material. The silicone rubber will only burn when in the flame and will disintegrate into a white-grey powder at a temperature above 350 °C (350 - 450 °C). If you have any questions, please contact your Sales Representative or Gubener Plastinate GmbH.