# FSAD 211: EMBALMING AND ASEPTIC TECHNIQUE LAB MANUAL





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# Introduction

Welcome to Embalming lab! There are two modalities offered for lab. Despite the modality chosen, this manual will help to guide you through the requirements for FSAD 121: Analytical Embalming.

- 1. In-person labs
  - a. Labs will be completed on a weekly basis on campus in the embalming lab at the designated lab times.
- 2. Online labs (synchronous and asynchronous modalities)
  - a. Labs will be completed on your own in the funeral home under the direction of a supervisor.
  - All supervisors and funeral homes must be registered with the Program Director and must be in good standing with the NYS Bureau of Funeral Directing/NYS DOH.
  - c. All funeral homes must comply with OSHA's Formaldehyde standard: *Effective January 1, 2024* 
    - i. To ensure compliance with ABFSE regulations, all students will be required to report Air Quality Control (formaldehyde levels) for each embalming case. The embalming report form will be updated to include a section for recording formaldehyde levels as part of this requirement.
    - ii. Distance Learning students must also record formaldehyde levels using the new embalming report. Funeral homes may obtain these monitors through Amazon, and an example of the Air Quality Control monitor used on campus is attached.
    - iii. If a funeral home opts not to purchase a monitor, the student will be responsible for acquiring one as part of their required course materials.
    - All students are expected to adhere to Standard 7.1.3, which mandates that "all instructional facilities, on or off-campus, must meet federal, state, provincial/territorial, and local regulations." The federal regulation states:
      - 1. <u>1910.1048(c)</u> Permissible Exposure Limit (PEL) –
      - 2. 1910.1048(c)(1) *TWA*: The employer shall assure that no employee is exposed to an airborne concentration of formaldehyde which exceeds 0.75 parts formaldehyde per million parts of air (0.75 ppm) as an 8-hour TWA.
      - 3. <u>1910.1048(c)(2)</u> Short Term Exposure Limit (STEL): The employer shall assure that no employee is exposed to an airborne concentration of formaldehyde which exceeds two parts formaldehyde per million parts of air (2 ppm) as a 15-minute STEL.

Cadavers come from SUNY Upstate Anatomical Gift Program. If you experience a loss in your family and believe they may be a donor please let us know. If your loved one is the gracious donor then you will be excused from that lab session.

#### YOU MAY NOT PARTICIPATE IN EMBALMING LAB (In-person or virtual) IF YOU ARE

**PREGNANT**. Formaldehyde is a carcinogen and may cause harm to the unborn fetus. If you are pregnant, please speak to the instructor and other arrangements will be made for later completion of the lab components.



#### Lab safety

Safety is of upmost importance to us in the Embalming room, as we want all students to be safe and protected from any hazards you may be exposed to. OSHA (*Occupational Safety and Health Administration: A Governmental Agency with the responsibility for regulatory and enforcement of safety and health matters for most United States employees; an individual State OSHA agency may supersede the U.S. Department of Labor OSHA regulations*) has created a set of regulations that need to be followed in our funeral homes and more specifically, our embalming or prep rooms. In the lab you should uphold all safety regulations put forth by OSHA, SUNY Canton, and your instructor. Embalmers need to use universal precautions *(acting as if every body is infectious)* and utilize personal protective equipment (PPEs). PPEs include but are not limited to: gloves, gowns, shoe covers, face masks, impermeable aprons, goggles, face shields, and/or coveralls. During the embalming process all embalmers should be following maximum hygiene practices and standards including but not limited to: handwashing, cleaning fingernails, rinsing oral and nasal cavities, and showering. Required PPE for Lab:

- 1. Face Mask
- 2. Glasses, safety goggles, safety glasses, face shield
- 3. Lab coat, Scrubs, Long sleeved shirts
- 4. Closed toed shoes
- 5. Nitrile gloves

OSHA safety features available in the lab for you

- 1. Safety Shower to release copious amounts of water in the event of a spill
- 2. Eye wash station to flush eyes in case of chemical contact
- 3. Sink with soap and water to wash hands
- 4. Biohazard trash can to dispose of any material contaminated with biohazard material/bodily fluids
- 5. Regular trash can for empty rinsed fluid bottles, and non-biohazard waste
- 6. Sharps container for disposal of any sharp objects
- 7. Bucket and mop to clean spills
- 8. Safety cabinets for safe storage of chemicals
- 9. Ventilation system for adequate air exchange
- 10. Fire extinguisher
- 11. First Aid Kit
- 12. Locker rooms for storage of non-lab items
- 13. Proper drainage/plumbing

In the lab you should employ **aseptic technique** (keeping the lab clean by using clean gloves to touch anything outside of the body). This is to keep the lab tidy and clean. Cabinet doors, machine knobs, fluid and chemical containers should only be touched with clean gloves. Dirty or contaminated gloves should only be used on the decedent and should be changed before touching anything else. At the conclusion of every lab the lab should be thoroughly cleaned and disinfected with proper cleaning chemicals and warm water.



#### Lab Instruments

An instrument learning activity will be completed in week 1 of the Embalming Lecture. The instrument activity will be uploaded into your lab shells in the Learning Management System (Brightspace).

There are various pieces of equipment that embalmers should be familiar with to utilize during the embalming process.

A major piece of equipment that is vital to the embalming process is the embalming machine. The embalming machine may be a pressure machine that uses an electrical pump to create pulsing or non-pulsating pressure, such as Porti-boy, Sawyer, Duotronic, and Dodge Embalming Machine. Pulsating pressure simulates the heartbeat and can help with clot removal. Although these machines have many benefits, such as a wide pressure range, constant pressure, and large volume tanks, they can break down. A backup embalming machine readily available is essential. They may also need frequent servicing and require constant monitoring during injection and use.

The embalming machine could also be gravity driven, in which a vat hangs from the ceiling to create pressure (0.43 lbs. of pressure per one foot of elevation, or  $\frac{1}{2}$  lbs. every 14", 1 lb. for every 28") for injection. The key here is pressure. We need to apply pressure to overcome intravascular and extravascular resistance that may be present. Hand pumps are not common anymore, but they resemble large hypodermic syringes attached to a bottle apparatus. Through this, the embalmer is able to create pressure for injection or a vacuum for aspiration. Bulb syringes are self-contained rubber manual pumps that can create pressure for injection (they cannot be used for aspiration due to one-way valves). Air pressure machines using mechanical or hydraulic pressure are also options.

Another important type of equipment is for aspiration and injection (for cavity embalming). Although the trocar is the main instrument for aspiration, there may be various types of apparatuses that the trocar attaches to. The trocar may hook up to a hydro aspirator, which is an apparatus that is connected to the water supply. When the water turns on, it creates a suction to aspirate (withdraw) fluids and waste. Electric aspirators use motors to create suction. Note: there is a water line to keep the motor lubricated. Finally, the newest aspirator being used is a waterless aspirator which uses centrifugal force to create the suction. Both the electric and waterless aspirators work best in prep rooms with low water pressure. Hand pulps and bulb syringes are historical instruments that use manually created pressure to inject and aspirate. Note: bulb syringes have one-way valves and cannot be used for aspiration).

Embalming rooms need appropriate embalming tables. These tables should be made of impermeable, non-porous material (porcelain, fiberglass, stainless steel) and should have a hole for drainage. Many tables also have the ability to tilt to utilize gravity. These are different from dressing tables, as dressing tables do not tilt and do not have drainage holes. However, many firms use combo prep/dressing tables. Along with these tables, there should be impermeable positioning devices to position the body correctly. These devices could be used to lift the head, fold the arms, lift the shoulders, etc.



Hair dryers and curling irons are key in the prep room to dry clothing and style the hair of the decedent.

Electric spatulas are electrically heated blades used to move excess fluid in swollen tissues. They help to remove edema. However, when using them, you want to have a layer of massage cream between the tissues and the spatula to ensure that the tissues do not become burned or seared.

Body lifts are designed to move decedents easily without adding physical stress to the lifter. Sterilizers are also for safety to ensure that instruments are sterilized. If an autoclave is utilized, the steam under pressure should be above 100°C.

Some firms have refrigeration units or coolers. These coolers should be kept between 38 and  $40^{\circ}$ F for the best results. Too cold, and the body will freeze; too warm, and the rate of decomposition will increase.

There are also many instruments and supplies that should be utilized during the embalming process. These include but are not limited to:

Instrument/Supplies	Purpose
Arterial Tube/Cannula	Used to inject embalming fluid into the arteries. Various shapes and sizes.
Needle Injector	A mechanical device used to inject injector needles/pins into the jawbone to close the mouth.
Scalpel	A handle and blade used for incisions.
Aneurysm hook/needle	An embalming instrument that is used for blunt dissection and in raising vessels.
Scissors	May be sharp-sharp, sharp-blunt, blunt-blunt (referring to each blade), or bandage scissors, used for cutting.
Groove director	Used to guide tubes into vessels
Bone Separator	Used to maintain elevation of vessels, usually plastic or wood. (Also great for cleaning under fingernails)
Hemostats (forceps)	Used to clamp vessels. It may be straight or curved and can lock in place.
Spring Forceps	Used for holding tissues, cotton, etc. Also used for restoration and holding open veins for drainage to remove clots.
Whitney Spreaders, incision spreaders	Used to hold incisions open.
Razor	Used to shave the decedent.
Drain tubes	Used to insert into a vein to aid drainage.



Suture needles	S, C, or Loopuyt shaped, used to close incisions by suturing with a ligature (string).	
Nasal tube aspirator	Used to aspirate the nose and throat area.	
Autopsy aspirator	Used to aspirate the body cavities after an autopsy. The head is flush with the tissues.	
Trocars	The sharp, hollow tube is used to aspirate body cavities and inject cavity fluid. Various sizes depend on the body. It may also be used for hypodermic embalming.	
Hypodermic syringes and needles	Used to inject embalming chemicals hypodermically and to inject restorative chemicals such as tissue builder.	
Trocar button	Used to plug the hole made by the trocar. Looks like a screw and is placed with a trocar button applicator.	
Arterial fixation forceps	Used to hold arterial tubes in place in the arteries and prevent leakage.	
Eye caps	Thin plastic dome-shaped disks are used to close the eyes and maintain the normal shape of the eye.	
Mouth formers	A piece of plastic may be used to maintain the shape of the mouth during closure.	
Kalip or Lip cement	Used to close the lips.	
Adhesive glue	Aron alpha, rubber cement, super glue. Used to close eyelids and lips when needed.	
Plastic garments	Unionalls, coveralls, capris, shorts, pants. Used to cover the decedent before clothes to prevent leakage.	
Cotton and Webril	Used to wipe tissues, swab orifices, and pack incisions.	
Solvent chemicals	Used to remove stains and cleanse makeup brushes. An example is acetone or Dry wash by Dodge.	
Preservative chemicals	Embalming chemicals are used to inactivate bacteria and slow decomposition.	
Bleaching agents (phenol)	Used to lighten areas of the skin.	
Disinfectant chemicals	Chemicals used for cleaning and to destroy or inhibit pathogenic organisms. Used on the body, instruments, table, walls, floors, etc.	
Sealers	Sealing agents are used to prevent leakage. It may be in powder or liquid form.	



# FSAD 211: Embalming and Aseptic Technique



# LAB 1: Intro lab/ Safety Lab INSTRUCTIONS: Please complete PART 1 and PART 2

PART 1: Plea	ase answer the fol	lowing questions regarding your lab pla	cement
On- Campus	Lab CRN #	Lab Instructor's name:	Verification of OSHA Formaldehyde Reader in Prep Room Student initial: Date: Instructor Initial: Date:
Remotely (In Funeral Home)	Lab CRN #	Funeral home name:	Verification of OSHA Formaldehyde Reader in Prep Room Student initial: Date:
			Preceptor Initial: Date:



**PART 2**: Please answer the following questions regarding lab and lab safety

- 1. What are the items you need to bring to a body lab to wear for personal protection?
- 2. What items are available in the lab for personal protection?
- 3. Where are the following items properly disposed of? (Sharps container, Normal Trash, Biohazard Trash)
  - a. Used scalpel blades
  - b. Wires cut off of injector needles
  - c. Empty fluid bottles
  - d. Gloves at the end of lab
  - e. Cotton soaked with blood
- 4. Which of the following should always be touched with clean gloves in the lab/embalming room, even during the embalming process? (circle)
  - a. Pressure buttons on the embalming machine
  - b. Handle on the cooler
  - c. Outside of the massage cream container
  - d. Inside of the massage cream container
  - e. Mop bucket
  - f. Instruments in the sterilizing tray
- 5. Who is responsible for ensuring the embalming lab is cleaned after embalming?

By signing this document, I acknowledge that I understand lab safety, have verified the presence of an OSHA formaldehyde monitor in the prep room, have verified that the funeral home is registered with the program director, and that I will complete all lab requirements in accordance with FSAD 211 and FSAD program requirements/due dates.

I understand that in the event of an emergency, a problem with my funeral home, or loss of the funeral home registration that I will notify the Instructor and Program Director immediately.

Student Signature:	Date:
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# LAB 2: SUTURING (completed in FSAD 121)

After the embalming process has ended, we must suture the incisions to adequately close them and prevent leakage. There are multiple different sutures that may be utilized.

A video demonstration will be linked in the course shell

- 1. In-Person Lab Students: You will complete the suture lab in the classroom utilizing duct tape and string.
- 2. Online Lab Students: You will watch the provided video and will upload photos of your practice sutures into the lab shell.

Suture	Description	Photo
Baseball	Starting underneath and coming up through the skin. Then crossing over to the other side. Creates a criss-cross pattern similar to the stitching on a baseball.	
Inverted baseball	This uses the technique of the baseball suture, however, it starts from the top of the skin and goes inward. Creates a flatter suture.	



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STATE UNIVERSITY OF NEW YORK	Funeral Services Administration	FSAD 211: Embaiming and Aseptic Te
Intradermal (Hidden)	Single: The needle begins underneath the incision and is brought up through the subcutaneous tissue, NOT throug the skin. This follows a back and forth motion across each side of the incision. Double: utilizes two needles on either side of the incision, think of tying your shoes with two laces.	h ff
Worm (draw)	Similar to the single intradermal, except it fully penetrates the skin	



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STATE UNIVERSITY OF NEW YORK	Funeral Services Administration	FSAD 211: Embaiming and Ase
Whip (roll)	The needle passes through both sides of the incision simultaneously. The needle is the brought back over to go back through both sides again. Hint: push needle through and "whip" it back over.	n
Locking	Follows the same pattern as the whip, except after going through both sides of the incision "lock" i by going through the loop created by excess ligature before pulling tight. Creates the shape of a "H".	t it



# **Pre-embalming analysis**

The embalming process begins with an embalming or case analysis. This analysis should be documented in the embalming report. This analysis allows us to look at both the intrinsic and extrinsic factors related to the body to plan the best embalming techniques to utilize. Some intrinsic factors we may take into consideration are: cause and manner of death, pathological conditions of the body, moisture levels of the body, temperature of the body, discolorations of the body, presence of gas, and weight (Corpulence- *obesity*, or emaciation-severely underweight), exsanguination (*total loss of blood*), medication use, presence of illicit drugs. Some extrinsic factors we may encounter are: atmospheric conditions (moisture, precipitation, pressure), temperature, presence of microbes, vermin, postmortem interval (*length of time between death and embalming*), and the skills of the embalmer. These conditions will affect various aspects of the embalming process.

A pre-embalming analysis should be done at the beginning of each lab to view the conditions of the decedent, and to create an embalming plan for the adequate treatment of the decedent.

During this, you should be recording on the lab report any identifying marks and features on the decedent.



# **Embalming Step Overview**

Note that this is a very generalized outline of steps. It will vary from case to case.

- 1. Personal Protective Equipment
  - a. Students will come to lab ready with their PPE (masks, gowns, gloves, etc.)
- 2. Decedent is placed on the embalming table
  - a. Head should be on the headblock
- 3. Pre-embalming analysis
  - a. Students will determine embalming methods to be used
  - b. Students will observe any markings and features of the decedent on the lab report
- 4. Decedent is undressed
  - a. Ensure to fold and keep clothes to return with the decedent
  - b. Decedent's genital areas should always be covered
- 5. Washing/ disinfection of orifices
  - a. Dispray should be sprayed in the eyes, ears, nose, mouth
  - b. Decedent's body should be washed with soap, water, and sponges
  - c. Hair should also be washed and combed
- 6. Positioning of body
  - a. Head should be tilted 15 degrees to the right
  - b. Hands should be folded over each other
- 7. Setting of features
  - a. Shaving
  - b. Closing the mouth
    - i. Select mouth closure: needle injector, mandibular suture, musculature suture
    - ii. Determine if you need a mouth former
  - c. Closing the eyes
    - i. Eye caps should be inserted
- 8. Determine point of injection (artery) and point of drainage (vein)
  - a. Which sites should you use? (R/L Carotid, R/L axillary, R/L femoral, other)
  - b. Which injection and drainage method are you using? (Intermittent, concurrent, alternate, closed)
- 9. Raise the artery and vein
  - a. Ligatures should be loosely tied around both the artery and vein
  - b. Artery should be incised and cannula inserted
  - c. Vein should be incised and drainage device inserted
- 10. Mixing of Embalming fluids
  - a. How much solution should you use?
  - b. What concentration/strength solution should you use?
  - c. What arterial chemicals are you going to use?
  - d. Fluid Math
  - e. Supplemental chemicals?
- 11. Injection of embalming fluids
  - a. Set pressure and rate of flow on the embalming machine
  - b. Start injection
  - c. Watch for distribution
  - d. Massage and manipulate tissues



- 12. Tie off artery and vein
  - a. Remove cannula and drainage device
  - b. Use ligature to tie off vessels to stop leakage
- 13. Appropriate suturing
  - a. Where is the incision?
  - b. Will it be viewable? What clothing will be worn?
  - c. Are we worried about leakage?
  - d. Select appropriate suture. (baseball, whip, worm, intradermal, purse string, locking).
- 14. Aspiration and cavity embalming
  - a. Utilize trocar and trocar guides to aspirate the thoracic, abdominal, and pelvic cavities.
  - b. Aspirate cranial cavity if needed
  - c. Select cavity fluid
  - d. Inject cavity fluid into cavities
  - e. Close puncture wound with purse string suture or trocar button
- 15. Other embalming treatments
  - a. Is hypodermic embalming needed?
  - b. Is surface embalming needed?
  - c. Restoration may be needed
- 16. Washing
  - a. Decedent should be rewashed to remove any debris, blood, chemicals.
  - b. Hair should be rewashed and dried for styling
  - c. Massage cream should be coated on hands and face
- 17. Dressing in plastic garments
  - a. What type of garments are needed? (coveralls, unionalls, pants, capris, stockings)
  - b. Decedent should be dressed in clothing
- 18. Post-embalming analysis and report
  - a. Decedent should be returned to cooler
  - b. Embalming lab should be thoroughly cleaned and disinfected
  - c. Students will complete the embalming report and will submit through the Learning Management System (Brightspace)

# **Common Injection Sites**

Remember that arteries carry blood away from the heart, and are the site of injection during embalming. Arteries are creamy white in appearance, have thick walls, and a lumen that remains open when incised. Veins carry blood back to the heart, and are the site of drainage during embalming. Veins generally have a blue appearance, and collapse when incised. There are six major injection sites.

Artery	Accompanying Vein	General Location	Notes
Right Common Carotid (most commonly used)	Right Internal Jugular	Right side of neck	Great for distribution to the head and hands. Able to insert a drainage device into the vein close to the right atrium for drainage.



			Note- watch for over- injection of the face. May be difficult if the decedent has clothing with low necklines.
Left Common Carotid	Left Internal Jugular	Left side of neck	
Right Axillary	Right Axillary	Right armpit	Great for clearing the hands and fingers. Watch for buildup of fluids if IVs had been used in a medical setting.
Left Axillary	Left Axillary	Left armpit	Great for clearing the hands and fingers. Watch for buildup of fluids if IVs had been used in a medical setting.
Right Femoral	Right Femoral	Right hip crease/inner thigh	Furthest vein from right atrium, could be difficult if the decedent has corpulence, and may have plaque present causing intravascular resistance.
Left Femoral	Left Femoral	Left hip crease-inner thigh	Furthest vein from right atrium, could be difficult if the decedent has corpulence, and may have plaque present causing intravascular resistance.

Although these are the major injection sites, there are many supporting vessels that may be utilized in autopsy, donor, and special cases. These vessels include the brachial arteries, radial arteries, ulnar arteries, popliteal arteries, anterior tibial arteries, posterior tibial arteries, subclavian arteries, and iliac arteries.

There are many factors that will affect vessel selection such as accessibility, proximity to the aorta and right atrium (for distribution and drainage), size of vessel, and intrinsic/extrinsic factors governing the body. These body factors include but are not limited to: age, biological sex, weight/adipose tissue composition, body disfigurements (arthritis), pathological disruptions (tumors, necrosis), moisture levels (edema, dehydration), trauma (accidents, surgeries, suicides, etc.), if an autopsy has taken place, if tissue/organ donation has taken place, cause and manner of death.



#### **Embalming Chemicals**:

<u>A chemical lab activity will be completed in the Embalming 2 lecture, and materials will be</u> provided in the Learning Management System (Brightspace). This will be turned in with your lab <u>materials.</u>

There are three types of embalming chemicals: arterial, cavity, and accessory.

Arterial or vascular chemicals are injected into the vascular system for temporary preservation, disinfection, and restoration. They work to sanitize the body and create a lasting memory photo of the decedent for the family.

Formaldehyde (also known as methanal) is a one carbon aldehyde that is a common preservative and arterial chemical because of its ability to denature and fix proteins. The first term we need to know is index. The index of the fluid is the strength. This is measured in grams of formaldehyde gas dissolved in 100 ml of water. Example, a 25 index fluid means there is 25% formaldehyde.

(Grams of formaldehyde gas/ 100 mL water)

A Strong or High index fluid is 26%-36% formaldehyde. A medium index fluid is 16%-25% formaldehyde. A Weak or Low index fluid is 5%-15% formaldehyde.

Formaldehyde is not the only arterial chemical that can be used for embalming. Glutaraldehyde (a 5-carbon dialdehyde), is also great as a preservative and disinfectant. It can also be used for Jaundice cases to remove yellow discoloration, and can work with various pH levels. Glutaraldehyde is also beneficial against tissue gas because it has the ability to kill spores, unlike many other chemicals. It can also be used to clean instruments and equipment. Methanol is also becoming increasingly popular as a preservative arterial fluid. Phenol is a carbolic acid which can be used in arterial solutions as a preservative, but is more commonly used as a bleaching agent or surface embalming agent.

Cavity fluids are injected into the body cavities using a trocar. This is usually done after aspiration. They are used to treat the hollow viscera and tissues that are not reached by normal arterial embalming. Remember the viscera contain many anaerobic bacteria that will continue to thrive in the body after death, causing decomposition, bloating, and gas, and we want to slow this occurrence.

Supplemental fluids are used for purposes other than preservation and disinfection.

Jaundice fluids work to remove yellowing discolorations, and restore natural coloring of the decedent. It is important to note that formaldehyde use on a body with jaundice may cause the conversion of bilirubin (the pigment causing the yellow coloring) to biliverdin, which can result in a green discoloration of the body. These fluids are low index, or contain glutaraldehyde, or methanol.

Accessory chemicals are used in addition to vascular and cavity chemicals. These are chemicals such as powders, gels, bleaching agents, and sealing agents.

Vascular chemicals:

# CHEMICAL COMPOSITION

Preservatives work to inactivate saprophytic bacteria and alter enzymes to slow decomposition.

There are many modifying agents that are added into fluids and solutions to create the desired effects, and overcome issues that occur due to the factors presented by the body.

Modifying Agent Type	Description	Examples	
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STATE UNIVERSITY OF NEW YORK	Funeral Services Administration	FSAD 211: Embaiming and Ase
Dyes	Inactive dyes (non-cosmetic):	Natural coloring agents (not
	Coloring added to fluid bottles	stable): vegetable based ex.
	to differentiate fluids, does not	Cudbear, carmine, cochineal
	give coloring to the decedent.	
		Synthetic coloring agents (most
	Active dyes	common): coal-tar based ex
	(cosmetic): Coloring added to	Fosin erythrosine ponceau
	fluids and solutions to restore a	and amaranth
	natural coloring and appearance	
	to the decodent. Typically a	Sustainable/Graan fluids use
	nink/nod coloring	ED Bad 2 (food coloring)
		FD Red 5 (100d colornig)
Anticoagulants (water-	Help against the coagulation of	Borates, EDIA, Salts, Citrates,
conditioners, water softeners)	blood. Reduce blood viscosity	Epsom salt
	(thickness). Sequestering agents	
	to combat calcium and other	
	ions found in hard water.	
Buffers	Affect the pH (acid-base)	Borates, Carbonates,
	balance within the solution and	phosphates, salts of EDTA,
	tissues.	citrates
	Important for rigor mortis	
	cases as the pH can drop into	
	the acidic range	
	the defaite range.	
	We want to maintain a normal	
	neutral hody pH (around 7)	
TT / /	neutral body pri (around 7).	
Humectants	Help to retain moisture in the	Glycerine, sorbitol, glycols,
	tissue.	polyhydroxy alcohols, lanolin
		(emulsified oils)
	Beneficial for cases with	
	dehydration.	
Surfactant	Reduce surface tension. Reduce	Anionic (dissolved in H2O to
	molecular cohesion of liquid.	create negative charged
(wetting agents, surface tension	_	anions): soap, alkyl sulfonates
reducers, penetrating agents,	Allows for penetration across	
surface-active agents)	permeable membranes.	Cationic (dissolved in H2O to
		create positive charged
		cations): · quaternary ammonia
		compounds
		compounds
		Nonionia (no charge):
		hydroxyle others (Americatoric
		(aither on i))
*7 1 • 1		(eitner - or +))
Vehicles	Serve as a solvent.	Water, alcohol, sorbitol,
		glycerine
	Solvents are agents that	



	dissolve a solute.	
	Ex. In a saltwater solution, salt is the solute and water is the	
	solvent.	
Perfuming agents/Masking	Work to combat smell and	Sassafras, oil of wintergreen,
agents/ Deodorizing Agents	odors.	benzaldehyde, esters
		Many people will also use "cherry charm" a common custodial chemical often used for cleaning vomit

#### Supplemental fluids:

Pre-injection	Injected before arterial chemicals to open up the vascular system.
	Helps relieve rigor, control pH, and remove clots.
Co-injection	Injected in conjunction with arterial chemicals to enhance the vascular chemical effects.

#### Accessory Chemicals:

Hardening compounds	Powdered chemicals that are	Plaster of paris, clay, wood
	able to absorb excess liquid	powder, kitty litter
Mold prevention agents	Prohibit the growth of mold	Paradichlorobenzene, cresol
Preservative powders	Powdered chemicals that are	paraformaldehyde, alum
	able to disinfect the area, and	
	absorb excess liquid	
Sealing agents	Used in incisions to absorb	Powders, creams, spray, gels
	moisture and liquid.	
Bleaching agents	Used t.o lighten up areas of the	Phenol, cavity fluid
	skin, and treat surface	
	problems	

#### **Chemical Math**

Chemical math is utilized to create your embalming solution that will adequately meet the formaldehyde demand and preservative demand of your decedent. Remember this will be case by case dependent based on the various intrinsic and extrinsic factors affecting the decedent.

#### (Index) x (Volume of fluid) = (Strength of solution) x (Total volume) C x V= C' x V'

Remember: Always use fluid oz for volume

1 gallon= 128 oz.



# **EXAMPLE FLUID PAGE**

1. Circle what kind of fluids you think we should use: THIS IS BASED ON YOUR CASE

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Perfuming Agent Bleaching Agent Dyes Other:

#### CHEMICALS SELECTED (C1):

\*\*write in the chemical you select in your prep room/lab. The index will be used for calculation. Example: Chromatech pink: Index 21

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ \*\*Example: 200 lbs = 4 gallons

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2) \*\*Example: 2%

4. Based on the fluids selected (index=C1), the amount of solution desired (gallons=V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

#### C1V1 = C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.

128x 4 (part 2) = 512oz.

21 (part 1) x V1 (we want to find V1) = 2 (part 3) x 512 (part 2) <u>21 x V1= 2 x 512</u>

V1 = 48.76 oz of chromatech pink is needed (3 bottles)



# BODY LABS

#### **Instructions:**

For all body labs. Please complete the pre-embalming analysis once the decedent is placed on the table.

Once the embalming is complete, please fill out the embalming lab report.

Lab reports should be uploaded to the Learning Management System.

\*\*Note that FSAD 211 labs have an additional chemical page\*\*

#### NON-BODY LABS

In the event there is not a cadaver available for use non-body labs may be completed during lab time. Any additional material required will be given to students by the instructor.



Funeral Services Administration BODY LAB 1: Pre-embalming analysis

Name:	 
Date:	
Record Number: _	

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 1: Fluid Choices

5. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

6. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

7. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

8. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

#### C1V1= C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)         Postmortem interval (PMI)         Autopsy         Donor         Rigor Mortis         Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis Postmortem pigmentation Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)         Postmortem interval (PMI)         Autopsy         Donor         Rigor Mortis         Postmortem pigmentation         Purge         Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial







#### EMBALMING INFO:

Circle which vessels were used for injection:	Circle which vessels were used for drainage:
Carotid: L / R	Internal Jugular: L / R
Femoral: L / R	Femoral: L / R
Axillary: L / R	Axillary: L / R
Brachial: L / R	Basilic: L / R
Radial: L / R	Heart tap
Ulnar: L / R	Other:
Other:	

Areas lacking distribution:

#### Condition at completion: Poor / Fair / Good Suture used: Baseball / Worm / Hidden / Locking / Whip

Circle what was completed by you:		
-Primary Disinfection	- Mixing fluids	
-Massage/Manipulation of tissues	-Set pressure and flow on machine	
-Body Positioning	-Raised Artery	
-Mouth Closure	-Raised Vein	
-Eye Closure	-Cavity treatment	
-Disinfection of orifices	-Autopsy treatment	
-Shaving	- Suturing	
-Washing Hair	-Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

#### CHEMICALS

TOTAL SOLUTION USED:	Chemical	Company	Index	Amount Used
gallons	Name	Name		(Oz.)
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_



Funeral Services Administration BODY LAB 2: Pre-embalming analysis

Name:	 
Date:	
Record Number: _	

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 2: Fluid Choices

1. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

4. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

#### C1V1= C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis Postmortem pigmentation Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis Postmortem pigmentation Purge Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis Postmortem pigmentation Purge Gangrene Lacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial







#### EMBALMING INFO:

Circle which vessels were used for injection:	Circle which vessels were used for drainage:
Carotid: L / R	Internal Jugular: L / R
Femoral: L / R	Femoral: L / R
Axillary: L / R	Axillary: L / R
Brachial: L / R	Basilic: L / R
Radial: L / R	Heart tap
Ulnar: L / R	Other:
Other:	

Areas lacking distribution:

#### Condition at completion: Poor / Fair / Good Suture used: Baseball / Worm / Hidden / Locking / Whip

Circle what was completed by you:		
-Primary Disinfection	- Mixing fluids	
-Massage/Manipulation of tissues	-Set pressure and flow on machine	
-Body Positioning	-Raised Artery	
-Mouth Closure	-Raised Vein	
-Eye Closure	-Cavity treatment	
-Disinfection of orifices	-Autopsy treatment	
-Shaving	- Suturing	
-Washing Hair	-Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

#### CHEMICALS

TOTAL SOLUTION USED:	Chemical	Company	Index	Amount Used
gallons	Name	Name		(Oz.)
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_



Funeral Services Administration BODY LAB 3: Pre-embalming analysis

Name:	 
Date:	
Record Number: _	

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 3: Fluid Choices

1. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

4. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

#### C1V1= C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)         Postmortem interval (PMI)         Autopsy         Donor         Rigor Mortis         Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)         Postmortem interval (PMI)         Autopsy         Donor         Rigor Mortis         Postmortem pigmentation         Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)         Postmortem interval (PMI)         Autopsy         Donor         Rigor Mortis         Postmortem pigmentation         Purge         Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial






#### EMBALMING INFO:

Circle which vessels were used for injection:	Circle which vessels were used for drainage:
Carotid: L / R	Internal Jugular: L / R
Femoral: L / R	Femoral: L / R
Axillary: L / R	Axillary: L / R
Brachial: L / R	Basilic: L / R
Radial: L / R	Heart tap
Ulnar: L / R	Other:
Other:	

Areas lacking distribution:

## Condition at completion: Poor / Fair / Good Suture used: Baseball / Worm / Hidden / Locking / Whip

Circle what was completed by you:		
-Primary Disinfection	- Mixing fluids	
-Massage/Manipulation of tissues	-Set pressure and flow on machine	
-Body Positioning	-Raised Artery	
-Mouth Closure	-Raised Vein	
-Eye Closure	-Cavity treatment	
-Disinfection of orifices	-Autopsy treatment	
-Shaving	- Suturing	
-Washing Hair	-Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

# CHEMICALS

TOTAL SOLUTION USED:	Chemical	Company	Index	Amount Used
gallons	Name	Name		(Oz.)
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_



Funeral Services Administration BODY LAB 4: Pre-embalming analysis

Name:	 
Date:	
Record Number: _	

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 4: Fluid Choices

1. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

4. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

## C1V1= C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge   Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial



Funeral Services Administration





#### EMBALMING INFO:

Circle which vessels were used for injection:	Circle which vessels were used for drainage:
Carotid: L / R	Internal Jugular: L / R
Femoral: L / R	Femoral: L / R
Axillary: L / R	Axillary: L / R
Brachial: L / R	Basilic: L / R
Radial: L / R	Heart tap
Ulnar: L / R	Other:
Other:	

Areas lacking distribution:

## Condition at completion: Poor / Fair / Good Suture used: Baseball / Worm / Hidden / Locking / Whip

Circle what was completed by you:		
-Primary Disinfection	- Mixing fluids	
-Massage/Manipulation of tissues	-Set pressure and flow on machine	
-Body Positioning	-Raised Artery	
-Mouth Closure	-Raised Vein	
-Eye Closure	-Cavity treatment	
-Disinfection of orifices	-Autopsy treatment	
-Shaving	- Suturing	
-Washing Hair	-Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

# CHEMICALS

TOTAL SOLUTION USED:	Chemical	Company	Index	Amount Used
gallons	Name	Name		(Oz.)
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_



Funeral Services Administration BODY LAB 5: Pre-embalming analysis

Name:	 
Date:	
Record Number: _	

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 5: Fluid Choices

1. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

4. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

## C1V1= C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge   Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial



Funeral Services Administration





#### EMBALMING INFO:

Circle which vessels were used for injection:	Circle which vessels were used for drainage:
Carotid: L / R	Internal Jugular: L / R
Femoral: L / R	Femoral: L / R
Axillary: L / R	Axillary: L / R
Brachial: L / R	Basilic: L / R
Radial: L / R	Heart tap
Ulnar: L / R	Other:
Other:	

Areas lacking distribution:

## Condition at completion: Poor / Fair / Good Suture used: Baseball / Worm / Hidden / Locking / Whip

Circle what was completed by you:		
-Primary Disinfection	- Mixing fluids	
-Massage/Manipulation of tissues	-Set pressure and flow on machine	
-Body Positioning	-Raised Artery	
-Mouth Closure	-Raised Vein	
-Eye Closure	-Cavity treatment	
-Disinfection of orifices	-Autopsy treatment	
-Shaving	- Suturing	
-Washing Hair	-Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

# CHEMICALS

TOTAL SOLUTION USED:	Chemical	Company	Index	Amount Used
gallons	Name	Name		(Oz.)
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_



Funeral Services Administration BODY LAB 6: Pre-embalming analysis

Name:	 
Date:	 
Record Number: _	

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 6: Fluid Choices

1. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

4. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

## C1V1 = C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge   Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial



Funeral Services Administration





#### EMBALMING INFO:

Circle which vessels were used for injection:	Circle which vessels were used for drainage:
Carotid: L / R	Internal Jugular: L / R
Femoral: L / R	Femoral: L / R
Axillary: L / R	Axillary: L / R
Brachial: L / R	Basilic: L / R
Radial: L / R	Heart tap
Ulnar: L / R	Other:
Other:	

Areas lacking distribution:

## Condition at completion: Poor / Fair / Good Suture used: Baseball / Worm / Hidden / Locking / Whip

Circle what was completed by you:		
-Primary Disinfection	- Mixing fluids	
-Massage/Manipulation of tissues	-Set pressure and flow on machine	
-Body Positioning	-Raised Artery	
-Mouth Closure	-Raised Vein	
-Eye Closure	-Cavity treatment	
-Disinfection of orifices	-Autopsy treatment	
-Shaving	- Suturing	
-Washing Hair	-Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

# CHEMICALS

TOTAL SOLUTION USED:	Chemical	Company	Index	Amount Used
gallons	Name	Name		(Oz.)
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_



Funeral Services Administration BODY LAB 7: Pre-embalming analysis

Name:	 
Date:	
Record Number: _	

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 7: Fluid Choices

1. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

4. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

## C1V1= C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge   Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial



Funeral Services Administration





#### EMBALMING INFO:

Circle which vessels were used for injection:	Circle which vessels were used for drainage:
Carotid: L / R	Internal Jugular: L / R
Femoral: L / R	Femoral: L / R
Axillary: L / R	Axillary: L / R
Brachial: L / R	Basilic: L / R
Radial: L / R	Heart tap
Ulnar: L / R	Other:
Other:	

Areas lacking distribution:

## Condition at completion: Poor / Fair / Good Suture used: Baseball / Worm / Hidden / Locking / Whip

Circle what was completed by you:		
-Primary Disinfection	- Mixing fluids	
-Massage/Manipulation of tissues	-Set pressure and flow on machine	
-Body Positioning	-Raised Artery	
-Mouth Closure	-Raised Vein	
-Eye Closure	-Cavity treatment	
-Disinfection of orifices	-Autopsy treatment	
-Shaving	- Suturing	
-Washing Hair	-Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

# CHEMICALS

TOTAL SOLUTION USED:	Chemical	Company	Index	Amount Used
gallons	Name	Name		(Oz.)
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_



Funeral Services Administration BODY LAB 8: Pre-embalming analysis

Name:	 	
Date:		
Record Number:		_

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 8: Fluid Choices

1. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

4. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

## C1V1 = C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge   Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial



Funeral Services Administration





#### EMBALMING INFO:

Circle which vessels were used for injection:	Circle which vessels were used for drainage:
Carotid: L / R	Internal Jugular: L / R
Femoral: L / R	Femoral: L / R
Axillary: L / R	Axillary: L / R
Brachial: L / R	Basilic: L / R
Radial: L / R	Heart tap
Ulnar: L / R	Other:
Other:	

Areas lacking distribution:

## Condition at completion: Poor / Fair / Good Suture used: Baseball / Worm / Hidden / Locking / Whip

Circle what was completed by you:		
-Primary Disinfection	- Mixing fluids	
-Massage/Manipulation of tissues	-Set pressure and flow on machine	
-Body Positioning	-Raised Artery	
-Mouth Closure	-Raised Vein	
-Eye Closure	-Cavity treatment	
-Disinfection of orifices	-Autopsy treatment	
-Shaving	- Suturing	
-Washing Hair	-Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

# CHEMICALS

TOTAL SOLUTION USED:	Chemical	Company	Index	Amount Used
gallons	Name	Name		(Oz.)
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_



Funeral Services Administration BODY LAB 9: Pre-embalming analysis

Name:	 
Date:	
Record Number: _	

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 9: Fluid Choices

1. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

4. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

## C1V1= C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge   Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial



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#### EMBALMING INFO:

Circle which vessels were used for injection:	Circle which vessels were used for drainage:
Carotid: L / R	Internal Jugular: L / R
Femoral: L / R	Femoral: L / R
Axillary: L / R	Axillary: L / R
Brachial: L / R	Basilic: L / R
Radial: L / R	Heart tap
Ulnar: L / R	Other:
Other:	

Areas lacking distribution:

## Condition at completion: Poor / Fair / Good Suture used: Baseball / Worm / Hidden / Locking / Whip

Circle what was completed by you:		
-Primary Disinfection	- Mixing fluids	
-Massage/Manipulation of tissues	-Set pressure and flow on machine	
-Body Positioning	-Raised Artery	
-Mouth Closure	-Raised Vein	
-Eye Closure	-Cavity treatment	
-Disinfection of orifices	-Autopsy treatment	
-Shaving	- Suturing	
-Washing Hair	-Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

# CHEMICALS

TOTAL SOLUTION USED:	Chemical	Company	Index	Amount Used
gallons	Name	Name		(Oz.)
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_



Funeral Services Administration BODY LAB 10: Pre-embalming analysis

Name:	 
Date:	 
Record Number: _	

- 1. Conditions of the body:
- 2. What problems may we encounter during this embalming???
- 3. What restorative measures do you think we should take?



Funeral Services Administration BODY LAB 10: Fluid Choices

1. Circle what kind of fluids you think we should use:

High index Low Index No Formaldehyde Jaundice Fluid Water Conditioner Preinjection/Coinjection Humectant Buffer Dyes Perfuming Agent Bleaching Agent Other:\_\_\_\_\_

CHEMICALS SELECTED (C1):

2. Once you have selected your desired fluids it is time to decide how much solution you want to make. Typically, between 2-5 gallons are used per case. For our calculations we will base them on the idea that 1 gallon should be used per 50 lbs of body weight.

Assumed Weight of decedent: \_\_\_\_\_  $lbs \div 50 \ lbs = ____ Gallons (V2)$ 

3. Now that we have determined the number of gallons we need to use we need to determine how concentration we want the solution to be (the strength = C2). Typically, between 1.5% and 4% solutions are used. You want a lower strength solution for cases that are emaciated or dehydrated. You want a stronger solution for cases with edema, trauma, decomposition.

What strength solution do you think is appropriate for this case: \_\_\_\_\_ (C2)

4. Based on the fluids selected (index= C1), the amount of solution desired (gallons= V2), and the strength of solution desired (C2) complete the Fluid Math to determine how much of your chemical you need to use (V1):

## C1V1= C2V2

(Index x ounces of fluid) = (concentration % x ounces of total solution) Remember 1 gallon = 128 oz.



Date:\_\_\_\_\_\_ Record/Case Number:\_\_\_\_\_

Student's Name:	Preceptor/Instructor's Name:
Student's Signature:	Preceptor/Instructor's Signature: Funeral Home Name:

# CASE INFO:

Date of Death			
Time of Death			
Cause of Death			
Age			
Sex (Male, Female, Non-Binary)			
Eye Color			
Hair Color			
Height			
Weight			
Nutrition			
Moisture Level (dehydrated, edema, normal)			
Teeth (Natural, Dentures, None)	Upper:		Lower:
Teeth (Natural, Dentures, None) Postmortem interval (PMI)	Upper:		Lower: Refrigeration: Y / N
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy	Upper: Y / N		Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor	Upper: Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None) Postmortem interval (PMI) Autopsy Donor Rigor Mortis	Upper: Y / N Y / N Y / N	Tissues:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation	Upper: Y / N Y / N Y / N Y / N Y / N	Tissues: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge	Upper: Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)   Postmortem interval (PMI)   Autopsy   Donor   Rigor Mortis   Postmortem pigmentation   Purge   Gangrene	Upper: Y / N Y / N Y / N Y / N Y / N Y / N Y / N	Tissues: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerations	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial
Teeth (Natural, Dentures, None)Postmortem interval (PMI)AutopsyDonorRigor MortisPostmortem pigmentationPurgeGangreneLacerationsBurns	Upper: Y / N Y / N	Tissues: Describe: Describe: Describe: Describe: Describe:	Lower: Refrigeration: Y / N Full / Partial



Funeral Services Administration





**Embalming Reports** 

#### EMBALMING INFO:

Circle which vessels were used for injection: Carotid: L / R Femoral: L / R Axillary: L / R Brachial: L / R Radial: L / R Ulnar: L / R Other:	Circle which vessels were used for drainage: Internal Jugular: L / R Femoral: L / R Axillary: L / R Basilic: L / R Heart tap Other:	Areas lacking distribution: <u>Condition at</u> <u>completion</u> : Poor / Fair / Good <u>Suture used</u> : Baseball / Worm /
--	---	---

Whip

Circle what was completed by you:		
-Primary Disinfection -Massage/Manipulation of tissues -Body Positioning	- Mixing fluids -Set pressure and flow on machine -Raised Artery	
-Mouth Closure -Eye Closure -Disinfection of orifices -Shaving -Washing Hair	-Raised Vein -Cavity treatment -Autopsy treatment - Suturing -Terminal disinfection	
AIR QUALITY READING:	Photo attached: Y/N	

### CHEMICALS

TOTAL SOLUTION USED:	Chemical Name	Company Name	Index	Amount Used (Oz.)
gallons				
Pre-Injection				
Primary Injection(Arterial+ Co- injections)				
Cavity Injection				

Special post embalming Treatments: \_\_\_\_\_\_