

between the third and fourth rib. The student will then be able to adequately perform the dissection with minimal disruption of the tissue and organs.

Several years ago we received a call from an embalmer who requested that Dodge provide him with a dummy invoice noting that he had purchased cavity chemicals from us. He hadn't. Before responding, I was anxious to learn more about his intent. Well, you guessed it, he was being sued because a body purged and he didn't do cavity treatment on the case. The court was asking for an embalming report form, which he probably never used, along with copies of invoices showing that he purchased cavity chemicals. (Of course, purchasing a chemical doesn't prove it was used, or enough was used. This could only be ascertained by exhumation and examination). I don't know the outcome of this situation, but he did not receive what he requested. What a sad commentary this was for our profession and for the family whose loved one this funeral home improperly cared for. Dodge does not relish saying "no" to anyone, but this was the only response we could offer.

Basic Dryene (contains phenol) can be used as the cavity chemical (never put it into your embalming machine) if you are treating a "tissue gas" case, a ship-out, or a case which I refer to as a "bad gut." The latter is not a "tissue gas" case, but one which has terrible gas and stomach purge. Basic Dryene can also be used if upon re-aspiration one discovers any problems such as a buildup of gas or odor when the trocar button is removed. Following treatment, spray the area with Dis-Spray, which neutralizes the phenol odor, and wash with Germasidol Soap. We can't help but spill some. You'll detect the phenol odor in the chapel if this procedure is not followed.

Perhaps we should do a future article on the types of trocars and aspiration equipment available, along with disinfection of said equipment. But prior to that, be sure to thoroughly disinfect your trocar (and all instruments) completely in a stainless steel tray, totally submersing it in straight DSD (Dodge Sterilant & Disinfectant). You do not want to pass "tissue gas" onto the next case...and the next. This happens. Diluting DSD makes it a disinfectant which does not win the fight against "tissue gas." When used straight (not diluted) it is a sterilant. A sterilant will kill "tissue gas." DSD is cheap insurance. Change it every 30 days. A gallon should last you two months or more depending on the size of your tray. Remove it from the sterilization tray through your aspiration equipment. If you can, allow some to set in the hose before your next procedure. We've read several depositions where the

embalmer was asked what type of instrument sterilization the funeral home used, along with proof of purchase.

Taking care of the dead is a sacred trust. We give the dead back their dignity. We also took an oath to respectfully and adequately treat everyone in our care. Not doing proper cavity work is not living up to that trust, and goes against the commonly accepted method of modern, thorough, and adequate embalming. Who has the energy, time, patience, and resources to deal with a lawsuit which can easily be avoided?

The old-timer was right when he said, "It's a lot harder to get out of trouble than it is to get into it." Using a good cavity chemical and a cold sterilant for all instruments will keep us out of trouble in the prep room...and in the court room.



Dennis divides his time working in his Dodge sales territory in northeastern Massachusetts, and being in the office manning the technical support line, along with helping out with customer service.  
Dennis Daulton



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## "I Never Use Cavity Chemical"

by Dennis Daulton

I never use cavity chemical!!?? I couldn't believe what I heard. That's like saying, "I don't look both ways before I cross the street." Or, "I don't buy homeowner's insurance." The caller had just completed his order and was trying to remember something he had forgotten. I noticed that he had ordered arterial and co-injection chemicals, but no cavity chemical. I was merely trying to help him recall what he had forgotten. And it wasn't cavity chemical. He doesn't use it!

The organs and intestines do have a blood supply, but it's what is inside them that can cause a catastrophic embalming failure...those nasty microorganisms are in the millions. Regardless of our size, we all have twenty-

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six feet of intestines. The embalmer needs to adequately arterially embalm the body, followed by proper thoracic and abdominal aspiration via a trocar. Cavity chemical is then injected by gravity into these cavities using a trocar and a cavity chemical injector attached to the bottle. This will saturate, disinfect, and preserve the organs by osmosis.

**I plead with you as a colleague, not as a representative of an embalming chemical supplier, to always use cavity chemicals. Always!**

Neglecting to treat the cavities with a proven cavity chemical is like playing Russian roulette. Some folks may constantly run a red traffic light, but sooner or later they usually get caught...and pay dearly for it. I plead with you as a colleague, not as a representative of an embalming chemical supplier, to always use cavity chemicals. Always!

The correct amount to use is predicated upon what the case at hand requires. If the deceased is very slight (80 pounds or less),

then perhaps one bottle (16 oz.) might work...8 ounces up (thoracic) and 8 ounces down (abdomen). But for the "normal" case (if there is such a thing anymore), we recommend using no less than two 16 oz. bottles (32 ounces, minimum). On a male, go over the pubic symphysis bone and insert the trocar into the genital area. You will need to squeeze the bottle a bit (make sure the cavity chemical injector is screwed on tightly) to inject several ounces into this area. Then pull the trocar back and continue treating the abdominal area. I've used as many as four to six bottles of cavity chemical on morbidly obese bodies.

Delaying aspiration should be considered if there is no gas, purge, or neck distention during the arterial injection. Maintaining vascular pressure (8-12 hours) also allows for progressive preservation and the staining power of the active dye in the arterial system to continue to work. You'll notice a more even color and less fading of the dye when delaying aspiration. If there is spotting during the arterial injection, this is proof that the arterial chemical is not being evenly distributed. Chemical takes the path of least resistance. Intermittent drainage solves this problem. Close down the drain tube periodically, especially during the injection of the last gallon.

On autopsied bodies I pour one bottle into the viscera bag after placing it into a bucket. Intestines containing gas will rise to the top. Snip with scissors, and then pour the second bottle into the viscera bag. Fold the bag and let it set during the embalming procedure. An alternative to using regular cavity chemical is to use Syn Gel LV which is made specifically for autopsied viscera. It is more viscous

than regular cavity chemical and clings more readily to the tissue.

Placing the viscera bag into the cavity can be somewhat of a challenge. To remove the trapped air in the bag, first lay the bag into the cavity, then insert your aspiration hose slightly into the bag and wrap the opening of the bag around the end of the hose. Then turn on your electric or hydro-aspirator. This will shrink wrap the bag by removing excess air. Have a suture ready to quickly tie off the end of the bag. This procedure will prevent the body from looking as if it had gained weight, and it also allows for easier suturing. Consider using gathering forceps (Catalog No. 702902) and clamp six or more inches away from where you begin to suture and work towards the forceps.

There are several types of cavity chemicals available. We offer "general purpose" Dri Cav, Metafix and Permafix; "low fuming" Spectrum, SynCav, and Mylofix; and "super firming" PermaCav Fifty and De-Ce-Co; and lastly Freedom Cav. All contain formaldehyde except Freedom Cav, which has none. Consult your Dodge rep, call our office, review our catalog or visit our website ([www.dodgeco.com](http://www.dodgeco.com)) to learn more about these cavity chemicals. There is also a technical bulletin available on these products as well as our premium arterials and co-injection chemicals on the website.

Our most popular cavity chemical is Dri Cav. It is a 22% index, has a wintergreen perfume, and is very drying and firming because it contains a drying agent never before used in cavity chemicals. Some are similar, but also differ, such as Syn Cav and Spectrum. Both have an index of 5%, but Spectrum, unlike Syn Cav, is very firming...almost as firming as Dri Cav, or so it seems to me.

**At Emory, cavity aspiration is not done...but cavity chemical is injected into the lungs and abdominal cavity, not with a trocar but by using a 60 cc syringe with a 13 gauge x 10" hypodermic needle.**

It is interesting how Dodge products are named. I was one of the testers of the yet unnamed cavity chemical (Spectrum). My former colleague and friend, John Dodge, who has since retired from the company, asked me if I could think of a name for this product since it had been accepted by the testing committee and would be offered in the near future. I thought for a moment and replied, "Well, I'm not sure. The chemical runs the spectrum from low index to a high firming." John immediately said, "Good thought. Spectrum it is."

Some folks will not use a cavity chemical unless

the fumes drive them out of the room. But this is not necessary. Jim Cooper, a licensed embalmer and now retired from Emory University Anatomical Program in Atlanta, GA, established a procedure years ago with the late Don Sawyer (Dodge's clinical expert and sales rep) and the late Henry "Alex" Alexander (former Dodge rep for Emory) where only Dodge chemicals are used in a waterless mixture. In fact, for a family that is donating the body to the medical school, but also wants a traditional service with the body present, there are several funeral homes in the Atlanta area that are allowed to have a funeral with the embalmed body present if Emory's embalming protocol is followed. What a wonderful gift this is for those families. They have the benefit of saying goodbye to their loved one, and also assist medical school students who will be our future doctors and surgeons.

I visited the school several years ago with my colleague, Jeff McCarthy, Dodge's current rep for Emory University. I was most impressed with the cleanliness of the facility and the absence of the odors I've been accustomed to when taking donation bodies to some other medical schools. But what impressed me most was the excellent condition and respectful care given to the bodies. I saw and thoroughly inspected several that had been embalmed 18 months previously. One would have thought they were embalmed the day before. Jim mentioned

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that more than a few students told him the reason why they decided to go to Emory was because of the condition of the lab and the bodies, and that there was no odor... unlike what they had experienced visiting other medical schools with their parents. Great job recruiting, Jim!

At Emory, cavity aspiration is not done...but cavity chemical is injected into the lungs and abdominal cavity, not with a trocar but by using a 60 cc syringe with a 13 gauge x 10" hypodermic needle. The tissue needs to be disinfected and preserved, but the organs need to be kept intact as much as possible for medical studies, and also to control odor and eliminate putrefaction.

Imagine a tic-tac-toe grid and then visualize it being placed on and covering the entire abdomen. Sixty cc is injected into each of the nine sections, along with 60 cc into each lung. The point of entry into each lung is