# DURABLE LABELS FOR PLASTINATED SPECIMENS R.

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## INTRODUCTION

Ever-increasing interest has been shown in techniques of plastination and its use, however little has been presented on the rather simple need for low-cost, professional-appearing labels for plastinated specimens. This article will summarize the method used at Mercer University School of Medicine for the production of labels for all specimens, both plastinated and conventional.

We have found this system convenient in that only simple, commonly available equipment is needed. For example, one must have the following on hand:

l)clear or blue transparency sheets of the kind used on photostatic copiers (\$0.25 per 8.5 x 11 inch sheet)

2)heat-sealable plastic pouches of the kind used with a laminating press (\$0.30 per 3 x 4 inch pouch)

3)metal clasps of the kind used to attach lures to a fishing line (\$.02 per clasp)

4)heavy duty utility knife or scissors to trim plastic labels

Additionally, one should have access to the following common office equipment:

1)typewriter or computer with printer

- 2) photostatic copy machine
- 3) heat laminating press (\$180.00)
- 4) hobbyist's variable speed drill (\$25.00)
- 5) single-hole paper punch of 1/8 inch diameter (\$2.00)

#### **METHOD**

Information to be included on the label is typed on a standard sheet of white paper. This should include the identity of the specimen by name of institution, accession number, anatomic site and pathologic process. We have found it desirable to limit such information as much as possible so that the size of the tag can be kept to a minimum. This becomes particularly important when working with small specimens.

Several "rules of thumb" are helpful for the typist. Allow abundant space between labels and the edge of the paper for ease of duplication. Two vertical columns of labels will fit on one 8.5 x 11 inch piece of paper if the width of each column is limited to 30 characters. This leaves six blank columns for margins and the area between labels. Labels should be five lines in height and separated by two lines.

Up to nine labels can occupy a single column (more may be possible on standard

European paper). Thus, at least 18 labels can be typed on one page. Use the smallest type font available so that the largest amount of information can be squeezed into the least area. font is small enough, perhaps even three columns of labels could be accommodated on one page. Some photocopiers are able to reduce images up to 1/2 of their original size. This feature should prove attractive for the unusually frugal.

Although small size is desirable, care should be taken to assure that characters are of a size that can be read without magnification. Do not reduce them to microfiche at the copy station. We would suggest that you experiment with various copier settings using white paper to arrive at the best contrast and zoom settings rather than expensive transparency sheets. Duplication is perhaps the most important step in this process since it will determine the quality of the final product.

Once the labels have been imprinted on the transparency sheet, carefully divide it into four equal rectangles and trim away excess plastic so that each of these fits into a 3 x 4 inch plastic laminating pouch. Straighten the rectangle neatly and seal the pouch according to the instructions provided with the laminating press. This usually includes placing the pouch in an aluminum foil sleeve and inserting it between the hot rollers of the laminator.

Perform this step twice to assure the very best seal. Cooling should be accomplished on a hard, flat surface using a book or other flat, heavy object to prevent warping.

Separate the labels in a single laminate using heavy-duty scissors or a utility knife. Even better, use a paper cutter to assure straight edges and square

corners. This instrument is usually available in photography laboratories or the copier room. Use caution, however; this step may require a little practice.

Next, a 1/8 inch hole is punched in the upper right area of the label so that a metal clasp can be inserted and used to attach it to the specimen. should be taken to place the clasp in a strong area of the specimen. possible, attach it through a blood vessel or some other location with high tensile resistance. Bony specimens may require creating an artificial hole for the clasp. We have found that a hobbyist's handheld drill works well for this purpose.

Inevitably, some specimens will defy all efforts to apply the label in a satisfactory manner but, in general, we have found this method accommodates most kinds of tissue and is an excellent adjunct to museum and plastination techniques.

If labels are prepared in significant numbers, our method becomes quite costeffective. A simple analysis reveals the following:

## Supplies (cost per label):

transparency sheet \$0.01 plastic pouch \$0.07 metal clasp \$0.02 white paper \$0.01 Subtotal: \$0.11 per label

Equipment (depreciated for 3 years @ 500 labels/year)

\$0.12 laminating press

\$0.01 miscellaneous

Subtotal: \$0.13 per label

Labor (3 minutes per label @ \$6.00 per

Subtotal: \$0.30 per label

hour)

Grand Total Cost per Label: \$0.54

## SUMMARY AND CONCLUSIONS

A method is described for producing durable, professional-appearing specimen labels of high quality. The benefits of these labels far outweigh the cost of their production, even with limited use. If produced in large quantity, their expense can be rendered even lower.

A list of our current vendors is as follows:

1) Art Wire and Doduco (Attention: Mr Lou Coble) 9 Wing Drive Cedar Falls, New Jersey 07927 **USA** 

Order "Large Safety Snap #903" The minimum order is 25 gross and costs \$80.00

2) **General Binding Corporation** One GBC Plaza Northbrook, Illinois 60062 USA

Order "Jumbo Laminating Pouches #1210-46"

They are supplied in boxes of 100 at \$39.50 per box

4" Mini-Lam Heat Sealing Laminator Costs \$180.00 at time of this writing

3) Local Office Supply Store

Transparency Sheets for Overhead Projector (for use in Canon Copier) Sparco #95000

Costs approximately \$30.00 for 100 sheets