Rehydrating desiccated hands in less than 24 hours: A comparison of two methods

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Office of the Chief State Medical Examiner

LEARNING OBJECTIVES

• Learn the three different conditions encountered in advanced stages of decomposition
• Understand the process of desiccation and the difficulties of fingerprinting
• Recognize traditional rehydration methods
• Become familiar with a dissecting technique
• Learn the best and fastest method to rehydrate desiccated fingers

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- Essex
- Hudson
- Passaic
- Somerset

- Population 2 Million
- 4900 Cases
**CASELOAD**

Manner of Death

- Natural: 138
- Accident: 50
- Suicide: 203
- Homicide: 663
- Undetermined: 3809

1174 Autopsies 604 Views

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**IDENTIFICATION**

- Visual Identification
- Self Identification
- Photo ID

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**Scientific Identification**

- Fingerprints
- Dental Comparison
- Radiographic Comparison
- Medical Implants
- Anthropology
- DNA

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### Identification Other

- Tattoos
- Scars
- Amputations
- Deformities
- Disease processes
- Distinctive features

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### Putrefaction

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### Maceration

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Desiccation

Rehydration Methods
• Potassium Hydroxide 24-72 hours
• Sodium Hydroxide 24-72 hours
• I.D. Enhancer Solution ®

10 Subjects
• Ages 47-89
• Found indoors
• Last seen alive 5-21 days, 2 unknown
• 3 fingers chosen
• 6% Sodium Hydroxide
• 12% Sodium Hydroxide
• I.D. Enhancer Solution®
Inked

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Final Results

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Evaluation of the best solution

- Time of rehydration
- Pliability and abnormal foldings
- Texture
- Destructive
- Better fingerprints
- Less intervention
Better Fingerprints

Less intervention

Questions?
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