


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

Christian Torres M.S.  
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**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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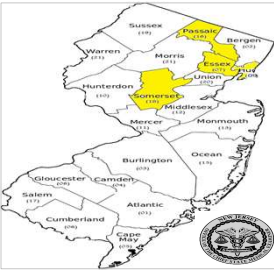
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- ❖ Essex
- ❖ Hudson
- ❖ Passaic
- ❖ Somerset

- Population 2 Million
- 4900 Cases



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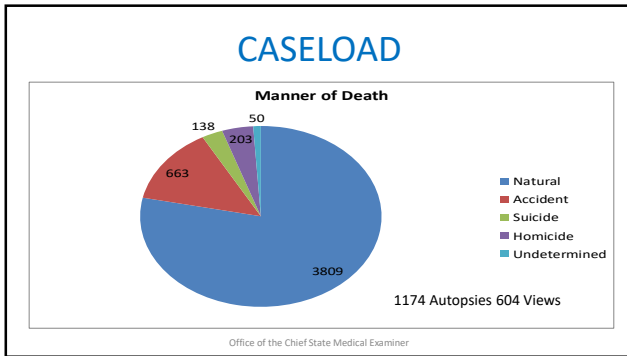
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- ### IDENTIFICATION
- Visual Identification
  - Self Identification
  - Photo ID
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- ### Scientific Identification
- Fingerprints
  - Dental Comparison
  - Radiographic Comparison
  - Medical Implants
  - 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



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### Rehydration Methods

- Potassium Hydroxide 24-72 hours
- Sodium Hydroxide 24-72 hours
- I.D. Enhancer Solution<sup>®</sup>

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### 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<sup>®</sup>

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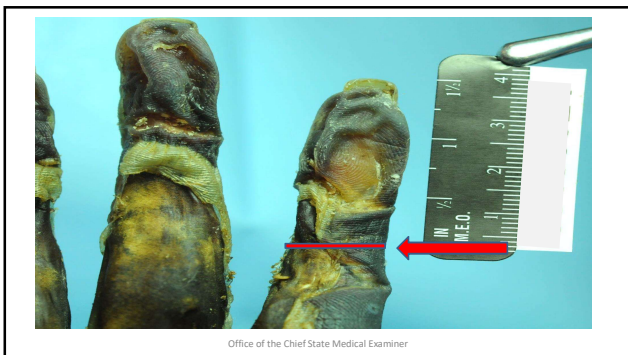
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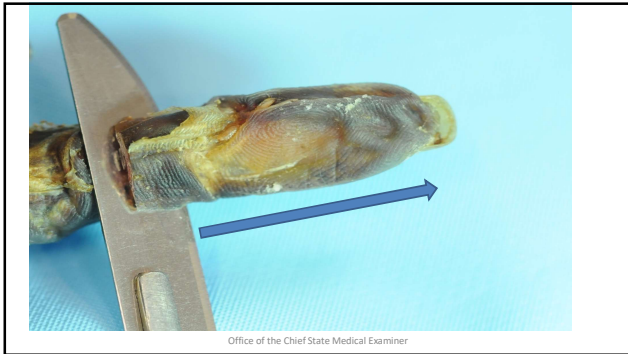
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### Pre-rehydration



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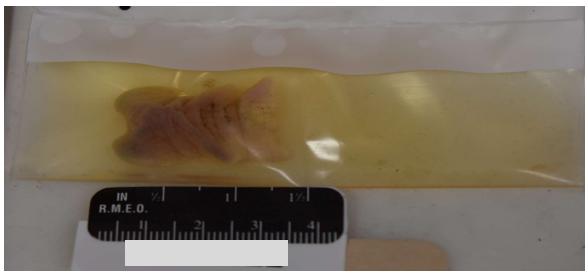
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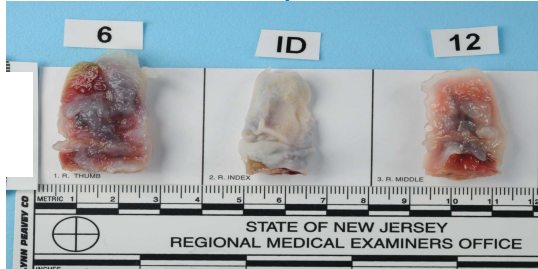
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### After rehydration



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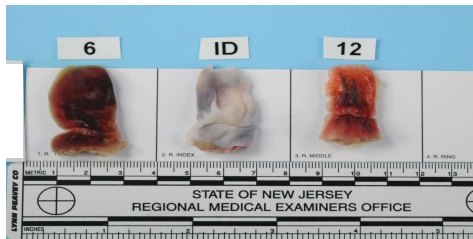
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### Cleaned after rehydration



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### Inked



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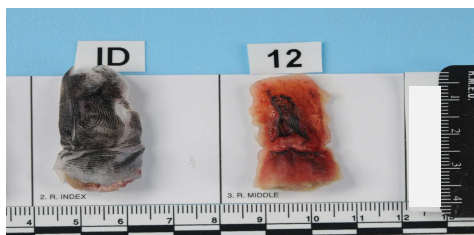
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## Inked



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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

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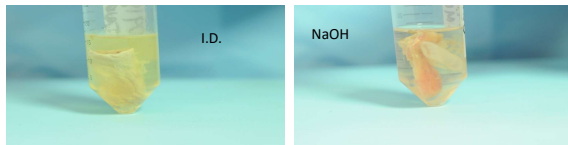
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## Time of rehydration



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## Pliability and abnormal foldings



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## Texture



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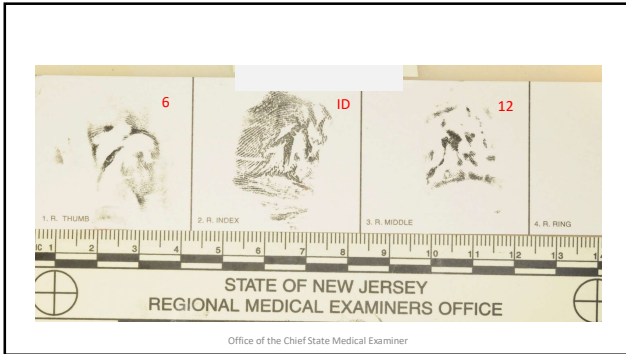
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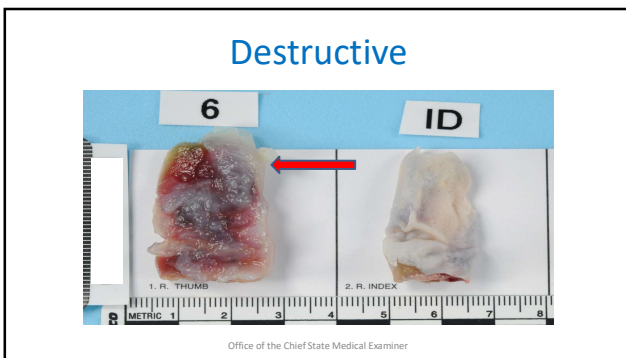
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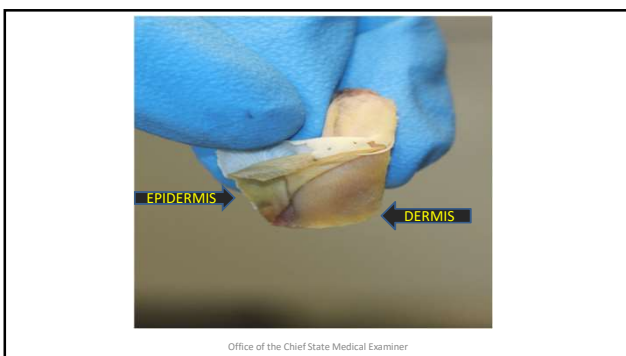
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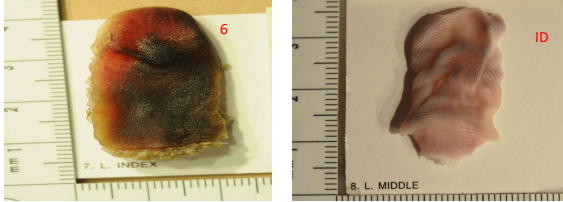
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## Better Fingerprints



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## Less intervention



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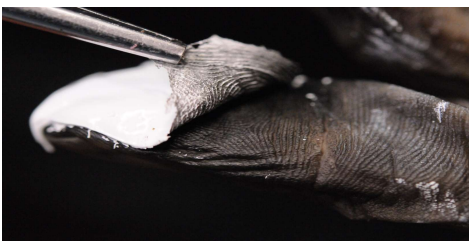
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## Questions?



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