

# Artificial Nails in the Healthcare Environment: Why We Care

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Wearing artificial nails or nail enhancements is associated with carrying higher amounts of pathogenic bacteria and yeast which can be transmitted to patients and lead to healthcare-associated infections.<sup>1</sup>

## Hand Hygiene Policy and Procedure

As per Alberta Health Services [Hand Hygiene Policy](#) and [Procedure](#), “natural nails shall be clean and short. Artificial nails, nail enhancements, and chipped nail polish shall not be worn by those staff, medical staff, and Volunteers who provide direct patient care (i.e. physical contact with a patient or patient’s environment) or perform other tasks that require hand hygiene.”

## Evidence

Studies have demonstrated strong experimental, clinical and epidemiological evidence that artificial nails can contribute to healthcare associated infections. For example:

- A prolonged outbreak of *Pseudomonas aeruginosa* in a neonatal intensive care unit resulted in 16 deaths. Evidence suggested association with exposure to two nurses with a possible link to artificial fingernails.<sup>2</sup>
- A cluster of 5 cases of *Serratia marscescens* bacteremia in hemodialysis patients was linked to a nurse who used an artificial fingernail to open a vial of heparin used to make a flush solution.<sup>3</sup>
- An outbreak of extended-spectrum beta-lactamase-producing (ESBL) *Klebsiella pneumoniae* in a neonatal ICU was linked to a healthcare provider with artificial nails.<sup>4</sup>
- A cluster of *Candida* osteomyelitis and diskitis infections after spinal surgery was linked to an operating room technician with artificial nails.<sup>5</sup>
- An outbreak of post-operative wound infections caused by *Serratia marscescens* was linked to a scrub nurse with artificial nails.<sup>6</sup>

## Bacterial Growth After Hand Hygiene

Hand hygiene is effective in removing potentially harmful microorganisms from your hands. However, artificial nails can hinder effectiveness of hand hygiene. Numerous studies have shown that healthcare providers with artificial nails or nail enhancements have a greater amount and diversity of bacteria **both before and after hand hygiene** than healthcare providers with natural nails.<sup>7</sup>



## References

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## Additional Literature on Artificial Nails in Healthcare

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