



REASONS TO USE POWDER-FREE GLOVES

1 POWDER CAN CAUSE THE DEVELOPMENT OF ADHESIONS & GRANULOMAS.

2 POWDER INCREASES THE RISK FACTOR FOR POST-OPERATIVE WOUND INFECTIONS.

3 POWDERED GLOVES CAN INCREASE LATEX ALLERGENS SENSITIZATION AND PROVOKE HYPERSENSITIVITY TYPE I REACTIONS.

4 POWDER CONTAMINATES THE ENVIRONMENT AND INCREASES EXPOSURE TO LATEX ALLERGENS THROUGH AIR INHALATION.

5 POWDER CAN INCREASE THE RISK OF CROSS CONTAMINATION OF MICROORGANISMS.

6 POWDER CAN INTERFERE IN LABORATORY TESTING CAUSING FALSE RESULTS.

7 POWDER HAS AN ABRASIVE ACTION ON THE SKIN.

8 POWDER UNBALANCES SKIN PH.

9 POWDER INTERACTS WITH ALCOHOL-BASED HAND SOLUTIONS.

10 POWDER INCREASES TIME AND COSTS.



10 GOOD REASONS TO USE POWDER-FREE GLOVES

Exposure to powder from both surgical and examination gloves can cause a number of undesirable reactions that are today well documented:



1. POWDER CAN CAUSE THE DEVELOPMENT OF ADHESIONS AND GRANULOMAS.

Well documented concerning the peritoneal cavity, but also reported in almost every anatomical site such as the eyes, oral region, cranial cavity, middle ear, thorax, bladder.

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16



2. POWDER INCREASES THE RISK FACTOR FOR POST-OPERATIVE WOUND INFECTIONS.

As with most foreign bodies, glove powder decreases the inoculum of bacteria required to produce abscesses (in this case being reduced by a factor of at least 10 fold.¹⁵ Moreover, powder delays wound healing and alters the normal reparative process while at the same time increases the wounds inflammatory response.^{16,17,8}



3. POWDERED GLOVES CAN INCREASE LATEX ALLERGENS SENSITIZATION AND PROVOKE HYPERSENSITIVITY TYPE I REACTIONS.

Powdered gloves can demonstrate a much higher level of Natural Rubber Latex (NRL) allergens than powder free gloves and might increase latex sensitization or induce immediate reaction of hypersensitivity type I through direct contact.

18,19,20,21,22,23,24,25,26,27,28,29,30



4. POWDER CONTAMINATES THE ENVIRONMENT AND INCREASES EXPOSURE TO LATEX ALLERGENS THROUGH AIR INHALATION.

NRL protein allergens can bind to glove powder. These allergens/proteins coated powder particles can be released into the air when the gloves are donned or removed. Inhalation or ingestion of these particles can lead to the sensitization and diverse allergic reactions to NRL (i.e. upper respiratory tract symptoms or eye irritation).

31,32,33,34,35,36



5. POWDER CAN INCREASE THE RISK OF CROSS CONTAMINATION OF MICROORGANISMS.

Glove powder can also act as a vehicle for opportunistic and pathogenic micro-organisms, which increase the occupational risks to healthcare workers and risks to patients. Powder particle contamination of catheters, perfused donor kidneys and cosmetic dentistry materials (crowns, prostheses) among others has been widely reported.^{37,38}



6. POWDER CAN INTERFERE IN LABORATORY TESTING CAUSING FALSE RESULTS.

Powder can cause false results i.e. PCR – Polymerase Chain Reaction, enzyme immunoassay or some HIV tests and powder granuloma being misdiagnosed as metastatic carcinoma.^{39,40,41}



7. POWDER HAS AN ABRASIVE ACTION ON THE SKIN.

Powder has a mechanical effect on hand skin by increasing its rugosity as shown by laser profilometry analysis of hand skins replicas.⁴²



8. POWDER UNBALANCES SKIN PH.

The skin pH which is of relevance for the protection against microorganisms (bacteria, fungi) is normally about 5.5. The skin pH remains alkaline for hours after wearing powdered gloves due to alkalinity of powder.^{42,43,44}



9. POWDER INTERACTS WITH ALCOHOL-BASED HAND SOLUTIONS.

After removal of the gloves, alcohol hand rubs may interact with residual powder on the hands of personnel, resulting in a gritty feeling on the hands. Powder tends also to soil hands with organic content which demands to be eliminated with water and plain soap cleaning before re-applying alcohol scrub.^{45,46}



10. POWDER INCREASES TIME AND COSTS.

Glove powder has to be removed after donning a surgical glove (by using sterile water or saline and sterile sponge or towel), which adds cost and time to the procedure. It has been reported as being at least seven times higher than the cost of using powder free gloves while at the same time being inefficient in totally removing the glove powder.^{47,48,49,50,51,52}

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