

Virus penetration of examination gloves

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Examination gloves worn for protection from biohazards were sampled and evaluated for their ability to exclude virus particles. We found that thin gloves manufactured from polyethylene or polyvinyl chloride are ineffective barriers while gloves of thin latex are superior but not without failure. Polyethylene and polyvinyl chloride gloves had failure rates of 40% and 22%, respectively. Following exposure to the common disinfectant, 70% ethanol, these failure rates increased to 94% and 56% for polyethylene and polyvinyl chloride gloves, respectively. Latex, although permeable to ethanol, was penetrated by virus less than 1% of the time regardless of whether the latex had been pre-exposed to disinfectant or not.

This study highlights the need for caution on the part of those who rely upon examination gloves for protection from infectious agents as well as the need for establishing more adequate standards and testing procedures for their manufacture.

SOURCE: US National Library of Medicine (NLM) and PubMed