

## Ms Anna Fourie

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### Qualifications

- BSc (Lab Med), Wits University, South Africa
- MSc (Med), Wits University, South Africa
- Higher Diploma in Health Sciences Education, Wits University, South Africa

### Professional Career

- Current position:
  - Medical Scientist, Immunology and Microbiology Section, National Institute for Occupational Health of the National Health Laboratory Service (NIOH-NHLS), South Africa
- Previous position:
  - Medical Scientist, Immunology Section, South African Institute for Medical Research (SAIMR)

### Affiliations with Professional Organisations

- Member of Allergy Society of South Africa (ALLSA)

### Career Highlights

- Providing an important service to workers by running the Occupational Skin Disease (OSD) Clinic at the NIOH
- Being part of the on-line training during the COVID-19 pandemic
- Lecturing on occupational skin diseases to postgraduate students
- Doing training on occupational allergies in several provinces in the country
- Being part of a project on allergies in soya processing plants in South Africa with the Health and Safety Laboratory (HSL) and travelling to visit the HSL laboratories in England

## Occupational skin exposures and the immune response in the COVID-19 era and beyond: Skin reactions to personal protective equipment (PPE) and hand hygiene measures

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### Overview:

Personal protective equipment (PPE) is considered a last resort to supplement other control measures to reduce exposure. However, PPE and hand hygiene measures used to protect against exposures can also result in adverse skin reactions which can affect workers' health and their ability to work.

PPE can result in various occupational skin conditions including allergic contact dermatitis; irritant contact dermatitis; contact urticaria, acne and physical damage of the skin.

Contact dermatitis is among the most common adverse reactions to PPE and hand hygiene procedures. Irritant contact dermatitis results from damage to the barrier of the skin. These conditions initiate an immunological reaction resulting in inflammation at the site of contact. Allergic reactions include both a Type I immediate hypersensitivity reaction which results in an urticaria (commonly a reaction to latex gloves), or a Type IV hypersensitivity reaction which results in an allergic contact dermatitis (may be a reaction to rubber, leather, dyes, fragrances, preservatives, etc.).

### Conclusion

Adverse reactions can occur in some individuals; therefore, appropriate PPE should be selected based on a risk assessment. Raising awareness is important so that appropriate action can be initiated early. Research is warranted to establish the prevalence of these conditions among worker populations.