



### TYPE IV CHEMICAL ALLERGY / ALLERGIC CONTACT DERMATITIS (ACD) TO GLOVES

Type IV Chemical Allergy, also known as allergic contact dermatitis (ACD), is a delayed hypersensitivity to a specific allergen that provokes a cellular reaction at the site of contact.<sup>1</sup> ACD is common, with studies demonstrating prevalence rates as high as 20% in the general population.<sup>2</sup> Genetic tendencies and environmental exposures can put certain groups at higher risk of developing ACD.<sup>1</sup>

Different types of gloves are made to protect workers from chemical to mechanical to environmental risks when manufacturing these gloves, chemicals known as accelerants are used in the manufacturing process of gloves. These chemicals have shown to cause ACD from both latex and non-latex gloves.

Common chemical accelerators include:

- Thiurams
- Carbamates
- Diphenylguanidine (DPG)



#### ONSET AFTER EXPOSURE

Delayed reaction up to 72 hours



#### DIAGNOSIS

- Medical history
- Physical examination
- Patch testing



#### SIGNS & SYMPTOMS

Itchy rash, comprising scaling, redness and possibly blisters that may then spread to other areas of the body



#### TREATMENT

- Avoid known allergens
- Select products that do not contain known allergen
- Use topical steroids and barrier creams

#### References:

1. Nassau S, Fonacier L. Allergic Contact Dermatitis. Med Clin North Am. 2020;104(1):61-76. doi:10.1016/j.mcna.2019.08.012
2. Alinaghi F, Bennike NH, Egeberg A, Thyssen JP, Johansen JD. Prevalence of contact allergy in the general population: A systematic review and meta-analysis. Contact Dermatitis. 2019;80(2):77-85.