

October 13, 2020 1 min read

N95 masks may lead to greater adverse skin reactions

There were greater changes in erythema, acne and roughness with the [use of N95 masks](#) compared with fabric and paper masks, according to a presentation at the American Society for Dermatologic Surgery annual meeting.

“Amidst the COVID-19 pandemic, health care workers and the general public are required to wear face masks for the protection of others and themselves,” **Natasha Atanaskova Mesinkovska, MD, PhD**, of UC Irvine, and colleagues wrote. “Current literature has reported an increase in facial skin temperature, acne flare, pruritus, discomfort and various other adverse skin reactions.”

In a prospective cohort, single-arm study, 21 participants wore a [fabric, paper or N95 mask](#) for 6 hours. High-resolution 3D imaging was used to obtain facial image analysis before and after wear to evaluate erythema, acne, roughness and rhytides. Additionally, participants were surveyed on facial comparison before and after mask use.

Subjectively, irritation, redness, acne and oiliness increased with all three mask types. Fabric masks led to an improvement in dryness, itching and skin texture.

Objectively, rhytide depth significantly increased around the chin with N95 masks vs. paper masks ($P = .0379$). With all three mask types, roughness, acne and erythema worsened, with the greatest changes for N95 masks.

Mesinkovska and colleagues wrote the changes in adverse skin reactions after N95 mask use were likely due to greater facial pressure and skin occlusion.

covid-19 practice management