

Researchers discover African-Americans respond better to rubella vaccine (w/ Video)

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Somali Americans develop twice the antibody response to rubella from the current vaccine compared to Caucasians in a new Mayo Clinic study on individualized aspects of immune response. A non-Somali, African-American cohort ranked next in immune response, still significantly higher than Caucasians, and Hispanic Americans in the study were least responsive to the vaccine. The findings appear in the journal *Vaccine*.

"This is fascinating," says Gregory Poland, M.D., Mayo Clinic vaccinologist and senior author of the study. "We don't know why these groups reacted so differently to the [vaccine](#)—that's a subject for further studies—but this new information will help us as we design the vaccines of the future. It will ultimately change how we practice medicine."

The researchers studied a sample of 1,100 healthy children and young adults in Rochester, as well as over 1,000 participants from the U.S. Naval Health Research Center in San Diego as the control group. The Navy members, aged 18 to 40, were all healthy and recently vaccinated, and represented a cross-section of ethnic groups. The study also looked at a subset of a recent immigrant population from Somalia in Rochester. The Minnesota case studies were done in cooperation with the Rochester Epidemiology Project.

The researchers hypothesized that race, sex or ethnicity might contribute to differences in immune response. They found no difference in gender—a surprise, says Dr. Poland, because in most studies women consistently have a better [immune response](#) to vaccines than men.

"The significance of the findings is that in the future we may be able to create vaccines for specific groups or even individuals based on their genomic and other characteristics," says Dr. Poland. "That may mean adjusting doses for some or being able to treat larger populations with the same vaccine if the dosage is less."

Provided by Mayo Clinic

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