

## Orofacial Gangrene | Case Study



Above: Photos of Mohammadu taken one month after his first surgery to close the side of his face and provide him with a cheek so that he could begin eating solid food again. Additional surgeries are planned in 2010 to reconstruct his upper and lower lips.



sub-Saharan Africa. Left untreated, the mortality rate ranges in the 50 to 90 percent range due to disease sequelae and social disintegration.

In Mohammadu's case, the orofacial gangrene affected his right lower jaw and lower face. He was unable to open his mouth and was living on pureed foods. Mohammadu's host family contacted Dr. Gregory Pearson regarding possible reconstruction. Although other hospitals responded that his case was too complex to accept the referral, Dr. Pearson evaluated him in the craniofacial clinic. Upon evaluation, he believed that Mohammadu could be helped by reconstruction of his face and that he could release the jaw stiffness.

In order to provide the best care for Mohammadu, Dr. Pearson employed the help of his partner and fellow plastic surgeon, Pankaj Tiwari, MD. Working together, Drs. Pearson and Tiwari were able to resect the diseased area of skin, release his stiff jaw joint, and cover this area with tissue from his leg using microsurgical techniques. Mohammadu has done well after the initial surgery. He is now able to eat cereal, pizza, hamburgers and other foods enjoyed by children his age. Mohammadu will require additional surgeries to reconstruct his upper lip and lower portion of his nose both of which were ravaged by NOMA. These procedures will be completed over the upcoming year. Overall, his prognosis is good and he is enjoying his new freedom of eating regular food again. ❤️

Left: Three-D images of Mohammadu's skull were used to assist physicians in planning his facial reconstruction. The images were generated from a CT scan of Mohammadu's head.

In some instances the most complex cases are referred to Nationwide Children's Hospital from other countries, such as Mohammadu, a 10-year-old boy who was referred to Nationwide Children's from Ghana, Africa. The Mission for Children's Health Africa were the missionaries who identified Mohammadu, who was in urgent need of medical attention. They sought out a host family in Columbus, Ohio. The Mission and host family have been covering the travel and living expenses of the child. The medical expenses are being deferred as charity care by Nationwide Children's. In addition, the physicians involved are donating their time. Mohammadu suffered from NOMA, which is also known as orofacial gangrene. NOMA causes scarring and loss of soft tissue and function of the facial units affected. NOMA is a disease endemic to



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Go online at [www.NationwideChildrens.org/Surgical-Scene](http://www.NationwideChildrens.org/Surgical-Scene) to view more clinical photos of Mohammadu's case.