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Intestinal helminth infections and anthropometric status among Tsimane' adults in Bolivia.  
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Although the negative consequences of parasitic infection on childhood growth and development are well established, fewer studies have examined the impacts of intestinal helminth infections on adult nutritional status. Because intestinal parasitism can aggravate pre-existing nutritional stress, understanding the consequences adult infection is especially important among populations who rely on non-mechanized agriculture to provide household food. This study examines the relation between intestinal helminth infection and adult nutritional status by evaluating how both a) the intensity of hookworm infection and b) the occurrence of multiple species infection (polyparasitism) are related to anthropometric characteristics. Fecal samples, anthropometric measures, and lifestyle interviews were collected for 83 Tsimane' men and women ranging in age from 17 to 70 years. Microscopic examinations revealed high levels of parasitic infection. Hookworm (*Ancylostoma duodenale* or *Necator americanus*) was the most commonly encountered infection with 82% of adults infected. More than 23% of subjects were infected with two or more species of intestinal parasites. Controlling for age of subject, significant and inverse relationships were found between hookworm intensity and Arm Muscle Area Z-scores ( $r = -0.230$ ,  $p = 0.019$ ), skinfold measurements (Sum Triceps and Subscapular skinfolds,  $r = -0.191$ ;  $p = 0.043$ ), and BMI ( $r = -0.179$ ;  $p = 0.054$ ). The negative relationships were stronger among adult females than males. Polyparasitism was not significantly associated with adult anthropometric status. This study suggests that hookworm infection presents a particular risk to women's nutritional health. Further research is needed to investigate the long-term nutritional consequences of persistent infection among adult men and women.

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