

**Tungiasis in 5-12 year olds and associated factors in Murang'a South district,
Central Kenya.**

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ABSTRACT

The parasitic skin disease tungiasis (caused by the sand flea *Tunga penetrans*) occurs in resource-poor communities in Latin America, the Caribbean and Sub-Saharan Africa. Information on prevalence and risk factors for infestation is nonexistent in Kenya. To fill this gap, a cross-sectional study was undertaken in Murang'a South district, central Kenya. A total of 385 randomly selected households were visited. Pretested questionnaires were administered to household heads. The most vulnerable age group (5-12 years) was examined for the presence of tungiasis. The prevalence of tungiasis was 57% (95% confidence interval = 51.7%-61.6%), and slightly higher in males (59.2%) than in females (54.8%; $P=0.4$). Itching (89.1%) was the most common symptom, followed by pain upon pressure (67.3%), sleep disturbance (58.2%) and walking difficulties (53%). In multivariate logistic regression analysis, the highest chance for infestation was detected for individuals living in houses with an earthen floor (adjusted OR=3.84; 95% confidence interval: 2.09-7.06), followed by knowledge on treatment (3.56; 1.17-10.84) having a common resting place (2.36; 1.01-5.51) and walking barefoot (3.28; 1.78-6.04). Tungiasis is highly endemic in rural central Kenya and associated with modifiable risk factors that may be used as targets for effective interventions.