

## TRICHINOSIS: Notes about the Disease

Consider the following two Biblical verses (Leviticus 11.7-8):

*. . . and the swine, because it parts the hoof and is cloven-footed but does not chew the cud, is unclean to you. Of their flesh you shall not eat, and their carcasses you shall not touch; they are unclean to you.*

North Carolinians have generally long heeded this warning by cooking their pork thoroughly, knowing since the nineteenth century that, perhaps fortuitously, there was sound scientific reasoning behind this ancient Jewish dietary law. The risk of acquiring trichinosis, a parasitic roundworm infestation of carnivores and omnivores caused—in North America—principally by *Trichinella spiralis*, inspired this admonishment. Clinically, in humans infected by eating undercooked meat from an infected animal, initial symptoms of abdominal pain, vomiting, diarrhea and/or constipation, and low-grade fever usually develop within a week of ingestion and may be followed one to several weeks later by edema, myalgia, and a host of other signs and symptoms as the larvae migrate into skeletal muscles. Many infections, however, are subclinical, and reported cases have always represented only a fraction of the actual infections.

The good news is that the risk of contracting trichinosis from eating pork in the United States has greatly diminished over the past several decades as commercial pork production methods have improved. For example, the practice of feeding raw garbage to pigs has been strongly condemned because of its importance in trichinosis transmission. There has been a concomitant decrease in the reported incidence of human trichinosis. Between 1947 and 1951, a median of 393 cases per year were reported nationally; this declined to a median level of 12 cases annually during the 1997-2001 period.<sup>1</sup>

The bad news is that occasional cases and outbreaks still occur. Although commercial pork producers have substantially reduced the risk of acquiring trichinosis from eating commercially produced pork products, those who consume wild game (e.g., wild boar, bear) or undercooked pork from unregulated private farms now account for the majority of cases.

Education of the public on the risks of eating undercooked meat, especially wild game and pork from noncommercial sources, continues as a Public Health responsibility. Part of this education should include imparting information about the ineffectiveness of ridding wild game of *Trichinella* spp. by freezing, even though proper freezing has been demonstrated to be effective in killing *T. spiralis* in pork.

1. Centers for Disease Control and Prevention. [Trichinellosis Surveillance—United States, 1997-2001]. *MMWR* 2003;52(SS06):2, [www.cdc.gov/mmwr/PDF/ss/ss5206.pdf](http://www.cdc.gov/mmwr/PDF/ss/ss5206.pdf).