



MIAMI BEACH

OFFICE OF THE CITY MANAGER

NO. LTC # 292-2010

LETTER TO COMMISSION

TO: Mayor Matti Herrera Bower and Members of the City Commission

FROM: *Hilda M. Hernandez*
Jorge M. Gonzalez, City Manager *JMG*

DATE: October 29, 2010

SUBJECT: Reports of Hookworms

This Letter to Commission is intended to provide you information regarding recent reports of a hookworm issue on Miami Beach. A news story late last week on one local TV channel, reported that several cases of individuals with hookworms had been identified in the area of 50th Street and Collins Avenue. The individuals that had the hookworms told the media that they had used the beach behind their condominium, and that their doctors had advised them that a possible source of hookworms was cat feces. They advised the TV station that they had contacted the Miami-Dade Health Department (DOH) and had received no response. It is unclear how long ago these individuals may have contracted the hookworms. Over the weekend, the DOH visited the area between 50th and 55th Street and collected samples of cat feces found around the boardwalk and the dunes. Those samples were sent for testing.

On Monday, we received a call from the DOH and immediately scheduled a meeting with representatives from the DOH, Miami-Dade County (Parks and DERM) and various City departments (Code Compliance, Sanitation, Environmental and representatives of the Manager's and Mayor's Offices). At the meeting we discussed the DOH's preliminary observations. At that time, the results of the samplings had not been completed, and as such, it was unknown whether any cases of hookworms were associated with cat feces in the Boardwalk or dune areas. Additionally, the DOH had only confirmed one individual as having hookworms at that time. Hookworms can be found in human, dog or cat feces. Generally, it is contracted by direct contact. Please see the attached fact sheet from the CDC website about hookworms. As noted, in 2002 there were 1.3 billion cases in humans reported. While the prevalence of hookworms in cat feces is less than in dog feces, there is a large presence of feral cats in the area, as evidenced by cat feces and remnants of cans and plates that are apparently left with food by cat feeders. As such, there is an assumption that any hookworms contracted may have been from cat feces in the area around the boardwalk and dunes. There has been nothing to indicate that there is any issue with the sand where bathers sit; concerns are focused on the boardwalk and dune area of a specific section of the City.

At the meeting, a multi-step plan of action was agreed upon by all parties. These action steps involved the identification of "Hot Spots" where there is cat feces or areas where it appears feral cats are being fed, for purposes of cleaning and, if necessary, treating those areas; developing and initiating a public education campaign regarding hookworms and cat feeding; and coordinating efforts with The Cat Network to provide spay and neuter services in the area as soon as possible, which involves providing medication to feral cats. Implementation of these action steps began immediately and continue. A Spay/Neuter event is already previously scheduled for this Sunday in South Pointe.

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Hookworm Reports

Late yesterday afternoon, the Health Department confirmed at least three (3) cases of individuals with hookworms. In DOH terminology, three cases would be considered an "Outbreak". They also advised us that they did receive the results from sampling taken from beach areas, and at least one sample of cat feces did have hookworms.

At this time the City continues to work cooperatively with the Department of Health to address the isolated area of the beach where this issue is reported to have occurred (approximately 54th Street and the Beach). However, as an added precaution, we have cleaned the area of the boardwalk and west side of the dunes from 50th Street to 65th Street. Additional areas south of 50th Street will also be addressed. Spraying of the areas is also underway. In addition, the County is addressing the areas that are their responsibility east of the dunes.

We are working with The Cat Network to coordinate dates for the mobile unit to visit this area of the beach sooner than had been previously discussed. We are also working with them to provide information and medicines to the known cat feeders. The City will be working on options to address the manner in which the feedings are occurring to address litter and unsanitary conditions.

We will continue to keep you posted as additional information becomes available.

HMF:ah
Attachment

CENTERS FOR DISEASE CONTROL

What is hookworm?

Hookworm is an intestinal parasite of humans that causes mild diarrhea and abdominal pain. Heavy infection with hookworm can create serious health problems for newborns, children, pregnant women, and persons who are malnourished. Hookworm infections occur mostly in tropical and subtropical climates. In 2002, the estimated number of person infected with hookworm was 1.3 billion.

Where are hookworms commonly found?

The geographic distributions of the hookworm species that are intestinal parasites in humans, *Ancylostoma duodenale* (an-cy-CLO-sto-ma doe-AH-den-al) and *Necator americanus* (ne-KAY-tor am-er-i-CON-us), are worldwide in areas with warm, moist climates, and widely overlapping. *Necator americanus* was widespread in the Southeastern United States early in the 20th century. The Rockefeller Sanitary Commission was founded in response, and hookworm infection in this area was well controlled. Hookworm eggs are not infective; they release larvae in soil that have the ability to penetrate the skin. Hookworm infection is transmitted primarily by skin being in contact with soil (for example, by walking barefoot) but can also be transmitted through the ingestion of larvae.

How do I get a hookworm infection?

You can become infected by direct contact with contaminated soil, generally through walking barefoot, or accidentally swallowing contaminated soil. Hookworms have a complex life cycle that begins and ends in the small intestine. Adult female worms produce thousands of eggs, which are excreted in stool. Hookworm eggs are not themselves infective. However, if they reach soil (for example, when infected persons defecate on the ground or when "night soil" is used to fertilize crops) and if the soil conditions are favorable (warm, moist, and shaded), the eggs hatch into larvae. The barely visible larvae penetrate the skin (often through bare feet), are carried to the lungs, go through the respiratory tract to the mouth, are swallowed, and eventually reach the small intestine. This journey takes about a week. In the small intestine, the larvae develop into half-inch-long worms, attach themselves to the intestinal wall, and suck blood.

Who is at risk?

People who have direct contact with soil that contains human feces in areas where hookworm is common are at high risk of infection. Children --because they play in dirt and often go barefoot-- are at high risk, although the prevalence of hookworm infection in endemic countries continues to rise into young adulthood. Since transmission of hookworm infection requires development of the larvae in soil, hookworm is not spread person to person. Contact among children in institutional or child care settings should not increase the risk of infection.

What are the symptoms of hookworm?

Itching and a rash at the site of where skin touched soil and is usually the first sign of infection. These symptoms occur when the larvae penetrate the skin. While a light infection may cause no symptoms, heavy infection can cause anemia, abdominal pain, diarrhea, loss of appetite, and weight loss. Heavy, chronic infections can cause stunted growth and mental development.

Can a hookworm infection cause any serious health problems?

Yes. The most serious results of hookworm infection are the development of anemia and protein deficiency caused by blood loss. When children are continuously infected by many worms, the loss of iron and protein can retard growth and mental development, sometimes irreversibly. Hookworm infection can also cause tiredness, and difficulty breathing with exertion. Severe disease can cause congestive heart failure.

What should I do if I think I have a hookworm infection?

Visit your health care provider. Infection is diagnosed by identifying hookworm eggs in a stool sample.

What is the treatment for hookworm?

Hookworm infections are generally treated for 1-3 days with medication prescribed by your health care provider. The drugs are effective and appear to have few side effects. Your health care provider may decide to repeat a stool exam after treatment. Iron supplements may be prescribed if you have anemia.

How can I prevent hookworm?

Do not walk barefoot or contact the soil with bare hands in areas where hookworm is common or where there may be fecal contamination of the soil.

Source: http://www.cdc.gov/ncidod/dpd/parasites/hookworm/factsheet_hookworm.htm#what