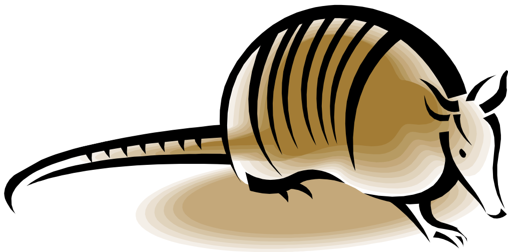
June 2011
Health and Emotional Wellness Tidbits

Leprosy in America

Approximately 150 cases of leprosy are diagnosed in Americans each year, with most of these cases occurring in Texas and Louisiana. Traveling or working abroad accounts for two-thirds of the cases, but the cause for the remaining one-third of the cases has remained a mystery, as these patients have no history of foreign travel or contact with a local infected source. Recently, however, researchers have potentially identified an unexpected reservoir for this infection – the armadillo. A new study has recognized an association between armadillos infected with leprosy and humans diagnosed with leprosy. In this study, the researchers utilized several genetic markers to identify the organism causing leprosy in wild armadillos and U.S. outpatients who attended a Louisiana leprosy clinic. These investigators found a never-before-seen strain of the disease in 28 of 33 armadillos and 26 of 29 patients. Researchers were able to obtain a history for 15 of these patients: 7 reported no physical contact with armadillos, 8 remembered having armadillo contact, and 1 of the 8 armadillo-contact patients reported frequently hunting, cooking and eating armadillo. Although a specific cause remains difficult to determine, these results imply that armadillos serve as a source of infection for leprosy and explains why the disease is more prevalent in the South, where exposure to armadillos is common.



Acknowledged since Biblical times, leprosy is a deforming infectious disease of the skin and peripheral nerves caused by the slow-growing, bacteria called *Mycobacterium leprae*. The disease is primarily characterized by peripheral nerve damage and hypo-pigmented skin lesions (loss of skin color) accompanied by sensory loss and diminished hair growth within the lesions. Symptoms may also include painless burn injuries, secondary bacterial infections, and muscle atrophy. The organism grows best at 80°F to 91°F and cannot thrive at human core body temperature, which explains its preference for cooler areas of the body such as the skin, nerve segments close to the skin and mucous membranes of the upper respiratory tract. It has been documented to grow in some animal species, including the armadillo, which has an optimal core body temperature (93°F) and life span that promotes the disease's survival and growth. Leprosy has also been discovered in some breeds of monkeys. Identified worldwide, leprosy is most likely transmitted through nasal and respiratory mucosa and occasionally skin-to-skin from patients possessing large numbers of bacteria.

While a connection between the armadillo and human leprosy has been introduced, the risk of acquiring leprosy is not increased based on these findings, as most humans (> 95%) are resistant to the infection. However, early identification and treatment of the disease may minimize nerve involvement. Unfortunately, symptoms may not manifest for several years and health care providers may not suspect a leprosy diagnosis, which delays treatment. A multi-drug therapy regimen is used to treat leprosy, with doses given daily from 6 months to 2 years depending on the strain of the disease. Leprosy patients who are undergoing therapy quickly become noninfectious.

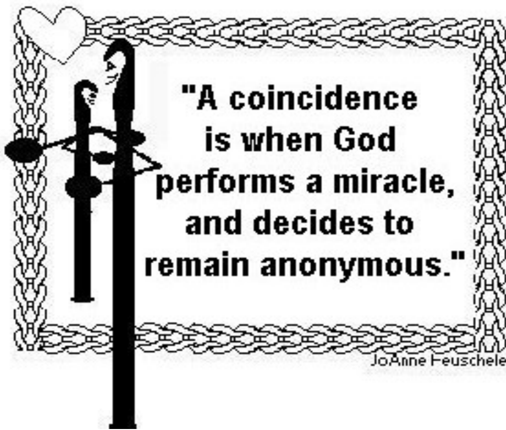
Because the germ is not a vigorous pathogen, brief contact with armadillos is not likely to infect humans (e.g., moving armadillo road kill). Direct contact with armadillo meat, though, does increase chances of transmission to humans. Therefore, handling or consuming armadillo meat should be avoided, as well as touching or purchasing souvenirs made of armadillo carcasses.

Leprosy did not exist in the New World until European settlers arrived. Armadillos somehow contracted the disease, and now, approximately 15% of armadillos are carriers. There is a lack of transmission between species, but inter-armadillo transfer occurs readily. Recognition of the link between armadillos and human leprosy cases may provide relief to some patients trying to identify a plausible source for their disease.

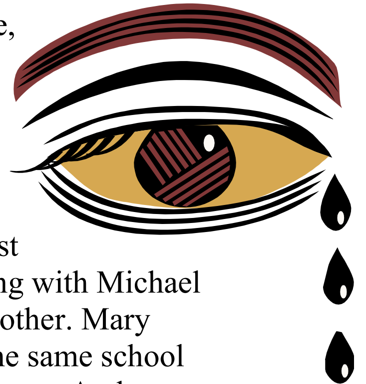
By Joe Dasta

"Is It Just By Chance? I Think Not!!!"

It was April 3, 2011, and I was sitting in an empty portable classroom waiting to see if anyone would show up for the first class of the most recent Grief Share Support Group. I was not really expecting anyone to come since no one had registered for the group, but I was still prepared to host just in case. Although the start time had passed, I was in no hurry to leave since I was doing some other work. At 3:45 I decided it was time to leave. As I walked toward the door, it suddenly opened and in walked Cindy Meyers saying she was here for the Grief Share Support Group. (She thought the group started at 3:45. We agreed that she probably combined the start time of 3:00 with the end time of 4:45 and thus got 3:45.) She mentioned that she was not grieving herself, but wanted to attend the group to learn how to help others who were. So Cindy and I completed the first group session and she then borrowed the remaining videos to view and complete the lessons at home. Because I happened to stay past the published start time, her need was met.



It was about this time, that within a two week period, two Leander ISD students died. One, from a drug overdose and another from suicide. It just so happened that Ramona Thompson, one of our members, knew the father (Michael) who had lost his son to a drug overdose and mentioned the Grief Share Support Group to him because she thought he and his family might want to attend. Michael contacted me and asked some questions about Grief Share then mentioned that he wanted to come, but at that time, believed he would be the only one from his family to attend. His family consisted of his wife, Linda, and four older children. Joey, the son who overdosed was the only child still living at home. Michael said he didn't think his wife or children would attend. To my surprise, the following week not only did Michael show up, but also his wife, Linda.



After the second week they told me they knew a woman from their church who had lost her son seven years ago who might want to attend the group. So, the following week, along with Michael and Linda, Mary Lyn attended. As soon as she walked into the room we recognized each other. Mary Lyn had been a Grief Share Facilitator in the past and had worked for the Leander ISD, the same school district where I was employed. In fact, I remembered speaking with her when she lost her son. And to think, here we were seven years later in group together.

At the group session two weeks later Mary Lyn came in a little early and mentioned that during the previous week, while visiting her son's gravesite, she noticed a woman sitting on a bench a little way from her. She thought about talking to the woman, but instead went ahead and visited her son's grave. As she was leaving, she realized that the woman she had noticed was still on the bench, so Mary Lyn decided to talk with her. The woman's name was Teri and she shared that she had lost her daughter to suicide three years earlier. Her daughter was actually buried somewhere in Michigan, but it helped her just to be in a cemetery as she continued to grieve her daughter's death. Mary Lyn mentioned the support group to Teri who said she was interested. Within ten minutes of Mary Lyn sharing this story, in walked Terri.

God is so wonderful and has a way of making things happen. I call these "small miracles by God." Ramona chose to reach out to Michael, who reached out to Linda and they reached out to Mary Lyn, who in turn reached out to Teri. It can be so wonderful when we take advantage of the opportunities God gives us to reach out to others. Another thing I believe is so amazing is that everyone who is in this group is grieving due to the loss of a child. Is it "Just by chance?" I think not!!!

By Don Davis