

COVID-19 and Individuals with Dwarfism

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The coronavirus is named for the crown like spikes that protrude from its surface. This type of virus can infect both animals and people and cause a range of respiratory illnesses from the common cold to pneumonia and lung damage. There are 4 common strains of the coronavirus which cause the common cold. It is a new coronavirus strain, SARS-CoV2 which causes the COVID-19 illness.

This strain of virus appears to spread very easily between people, especially in confined spaces. The virus can travel through the air in tiny respiratory droplets that are produced when the sick person breathes, talks, coughs or sneezes. There is some argument about how far the droplets can go. The recommendation for average statured people is about 6 feet. In short statured people this should be probably closer to 10 feet.

In the United States the evolution of COVID-19 illness in the population appears to be following a similar trajectory to other countries. If this is accurate we are not at the peak of this illness as yet.

Symptoms can take from 2 to 14 days to appear after exposure and include fever, dry cough, fatigue and difficulty breathing or shortness of breath. Milder cases may only have very limited (or perhaps no) symptoms.

The important thing to remember is that this virus can be passed on from very mild cases or from people who have no symptoms. It is important to wash your hands frequently and thoroughly with soap (20 second minimum). This may actually be better than the alcohol-based hand gels. It is also very important to limit your exposure to as few people as possible. Don't go to bars or crowded venues. It's a good time to watch all those old shows that you never got to. Going to work sick may endanger friends and coworkers. Many businesses and states have already instituted policies which should be followed. If you think you may have been exposed self-isolation and testing is a good idea. Testing is becoming more available.

A very important issue which has been demonstrated worldwide is to mitigate the impact. What this means is if the spread of the virus is slowed the number of people with severe illnesses will be less per unit time. This will allow the very stressed medical systems to manage more affected people. There are only so many hospital beds, ventilators and healthcare personnel.

The mortality risk from coronavirus maybe up to 3+%. Those at higher risk in the average stature population include individuals over 60 years, who are immune compromised (genetic abnormality or cancer treatment), with heart disease, high blood pressure or pulmonary disease. It is likely that these risks are going to be similar in the short stature population.

Average stature children have not been having severe COVID-19 symptoms as frequently as older adults. There is some data from China that suggests that children under one year may

have more severe disease than older children. It is also been reported from China that the risk to pregnant females with COVID-19 are higher than those that are not infected. There is no evidence of vertical transfer to a child (i.e.-infecting the child) born to a woman with the COVID-19.

Another important concern to the LPA population are problems that can occur to a baby with a COVID-19 infection. Although there is no specific data in children with skeletal dysplasia it is reasonable to expect that a child with skeletal dysplasia and associated respiratory disease will have a higher risk for a more severe illness with this infection. Types of predisposing respiratory problems could include: obstructive apnea as in seen achondroplasia; laryngomalacia, tracheomalacia or bronchomalacia as can be seen in camptomelic dysplasia, diastrophic dysplasia, collagen II-opathies; abnormal chest wall mechanics and restrictive lung disease as can be seen in metatropic dysplasia, Ellis van Creveld syndrome and Osteogenesis Imperfecta. Those with tracheostomies would be expected to have more problems than those without.

Following the suggestions outlined by the CDC are the best steps to take during this difficult time. <https://www.cdc.gov/coronavirus/2019-ncov/prepare/prevention.html>