

Reminder of the risk of heatstroke due to refraining from Activities and wearing a mask

Through June to September of last year, 64,869 people in Japan were transported by emergency medical service due to heatstroke. Among them, 37,528 (57.9%) were elderly people older than 65, making this largest statistic age group. The next largest age group was adults between 18 and 64 years of age, which reached to 21,756 (33.5%). These two groups accounted for 91.4 % of total number of cases.

As was done last year, we must refrain from many activities and are required to wear masks to prevent the new coronavirus infection this year as well. For these reasons, I would like to remind you of the risk of heatstroke at this time when the temperature is on the rise.

(1) Refraining from going outside can easily lead a lack of exercise, and especially a “no sweat” situation, a situation where the body is not ‘heat-trained’ well and this affects the normal physiological response of sweating that lowers our body temperature. Simply put, with the bodily functions that control the body’s temperature in decline, a sudden temperature rise can be a cause of heatstroke. Loss of muscle due to a lack of exercise can also lead to heatstroke. Since muscle is the largest organ that stores water in the body, less muscle means less water being able to be stored. This could easily allow our body to experience dehydration. In terms of wearing masks, wearing a mask on a regular basis makes our body keep the heat inside. Also, when we are dehydrated, our mouth usually becomes dry, but wearing a mask keeps your mouth moisturized. Therefore, people who wear masks all the time are less likely to feel their mouth is dry and are more likely to notice dehydration later than others. Elderly people who tend not to be aware of their thirst are more and more likely to become dehydrated, and this increases the risk of developing heatstroke. Apart from that, the idea that “we shouldn’t take off masks” unconsciously leads to avoiding the drinking of fluids, and it can also be one of the reasons for dehydration. Furthermore, the nutrients we intake don’t reach the hematopoietic cells under dehydration and this reduces our immunity capacity. Therefore, even if dehydration doesn’t lead to heatstroke, dehydration itself increases the risk of viral infection.

(2) The symptoms of heat stroke and the new coronavirus infection are similar. Heatstroke can cause symptoms such as tiredness, lightheadedness, a fever, and headaches. These symptoms are similar to mild symptoms of the new coronavirus infection and can be difficult to distinguish. If you have heatstroke, you can receive emergency treatment at a general hospital, but if you are suspected of having the new coronavirus infection, not all general hospitals will treat you. It's clear that preventing heatstroke can help an already disrupted

medical situation. Please follow the prevention tips for dehydration and heatstroke.

(3) Key points to prevent heatstroke

- ① Sleep well in a comfortable environment (most important).
- ② Eat three meals a day properly.
- ③ Drink water before, during and after going out. If you feel thirsty, drink water immediately (do not drink alcohol, such as beer, because it can increase dehydration).
- ④ Always keep oral rehydration solutions at home in case of dehydration.
- ⑤ Adjust the air conditioner so that it can be turned on immediately and avoid environments that you feel are hot. Ventilating the room frequently is also a necessity and be careful of high humidity. Please check the "Heat Index: WBGT" released by the Ministry of the Environment. <https://www.wbgt.env.go.jp/en/>
- ⑥ Don't wear a mask when you are alone or when you don't need one.
Even if you are staying at home, open the windows, exercise and work up a good sweat.
For example, taking a hot bath once a week to open your sweat glands is a good way to sweat.

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