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CORONAVIRUS: OPINION OF THE FRENCH NATIONAL ACADEMY OF MEDICINE

Confinement is not sedentary[☆]

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In the current pandemic context, decisions of containment and social distancing limit the level of physical activity and increase the time spent in a seated position (sedentary lifestyle), which is not without consequences on health status.

Regular physical activity and a reduction of physical inactivity prevent most chronic diseases and improve the health status of patients already suffering from these conditions. Containment creates a progressive but reversible state of "de-conditioning". It is characterized by muscle fatigability and loss of the muscle mass of 3.5% after 5 days of muscle inactivity, 8% after 14 days, 0.4%/d over 3–4 weeks. The loss of muscular strength, which mainly affects the lower limbs, is estimated at 9 and 23% after 5 and 14 days, and is associated with significant fatigability, which is the inability to maintain a prolonged contraction. This loss of muscle function is not only related to the loss of the muscle mass, but also to alterations in muscle contractility. Inactivity affects the flow of deep sensory information to the brain, reducing motor control which increases muscle wasting, a vicious circle that must be prevented.

A containment situation of 4 to 6 weeks is a cause of amyotrophy and muscle de-conditioning that is harmful to health. Mobility and postural maintenance are affected, which increases the loss of autonomy and the risk of falling in the elderly. Appropriate muscular activity must therefore be recommended at an early stage.

Faced with a situation of containment that promises to be long-lasting, the National Academy of Medicine recommends:

- to reduce the daily time spent in a sitting position and to interrupt these periods by a few minutes of walking and stretching for all age groups but especially for chil-

dren and teenagers. Each period of 30–40 min in a seated position should be followed by a 4–5 min walk around the home, alternating gentle stretching and tiptoe elevations;

- to practice adapted muscle-strengthening exercises, of the utmost importance for the elderly;
 - start with a 5–6 min muscular warm-up, and finish with gentle stretching,
 - use the furniture and utensils available at home (chairs or furniture as a means of support, water bottles as makeshift dumbbells, etc.),
 - consider at least one 15–20 min session per day, 3–4 times a week,
 - refer to the illustrations available on reference websites;
- to devote 30 min a day to a dynamic exercise, divided into several periods of 5–10 min. Containment conditions are not conducive to this type of activity, but the garden can still be used for dynamic group activity between confined spaces (ball games, jumping jacks for children, etc.), or a session of indoor cycling or exercises in climbing stairs or skipping rope on the landing. These activities should be designed as a form of fitness maintenance, not competition;
- to accompany these measures by a reduction in daily food intake, regularity of meals, taken with the family and without television, no snacking, especially in front of the screens, restriction of sodas and sweet-flavoured drinks.

It should always be borne in mind that in the event of the onset of fever or respiratory signs, any physical or sporting activity becomes contraindicated.

Disclosure of interest

The authors declare that they have no competing interest.

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