

### **The Road to Covid-19 Recovery Goes Through the Rehabilitation Department**

**When severe Covid-19 patients begin to recover, they face the harsh side-effects of prolong hospitalization and mechanical ventilation. This is the time for medical institution to invest in quality rehabilitation devices. Efficient and Quality physical-therapy will help patients regain pre-illness abilities, decrease hospitalization period and reduce hospitals overload.**

Covid-19 pandemic forces medical institutions to adjust to a rapidly changing reality. While patients who suffer from mild to moderate disease require minimal medical intervention, severe patients can suffer from life threatening respiratory symptoms such as Acute Respiratory Distress Syndrome (ARDS) and require critical treatment (Gattinoni L, 2020). They are admitted to the Intensive Care Units (ICUs) and require mechanical ventilation. **While the long-term effects of Covid-19 are still unknown, some of its immediate side-effects on patients' well-being are clear, and should be taken into account when planning patients' physical-therapy.**

For instance, it is well known that critically ill ICU patients often suffer from muscle weakness [ICU-Acquired Weakness]. This is especially relevant for patients who went through prolonged ventilation as part of their treatment, regardless of their individual medical background (Jolley SE1, 2016). Mechanical ventilation also affects the respiratory and cardiovascular systems, and can cause complications such as cardiovascular compromise and diaphragmatic dysfunction (A., 2006) (Yang KL, 1991). These, and other common side effects of ICU and mechanical ventilated, can seriously damage patients' quality of life and ability to function (Amal Jubran, 2019) (Jolley SE1, 2016). **Severe Covid-19 patients will need Physic and cardiopulmonary rehabilitation to regain pre-illness abilities and independency (UJ, 2002).**

Negotiating stairs and slopes as part of Covid-19 patients' rehabilitation program, even in its early stages, can be more effective than ambulation practice and general exercises. Their benefits are great: There is a high correlation between the ability to negotiate stairs and the ability to cope with home environment in the community (Reuben DB, 1990); Inability to negotiate stairs can be a risk factor for future medical problems, as stairs negotiation is responsible for 10% of falls in elderly population (Med., 1989); The ability to negotiate stairs requires greater lower extremity strength than many other daily activities (Startzell J, 2000); Stairs climbing's metabolic demand can be up to 3 times higher than walking (Powers S, 1990).

**The Dynamic Stair Trainer (DST) and the DST Triple** are the perfect solutions for Covid-19 patients' rehabilitation. The Dynamic Stair Trainer (DST) is an innovative device designed for the gradual practice of parallel bars, stairs and slopes negotiation skills for people undergoing physical rehabilitation. In a click of a button PT can set the height of the stairs (0-16.5 cm) and slop's angle (0-26 degrees) to the patient's current ability, and slowly raise the level to challenge them gradually. It is the perfect solution for practicing joints, muscles and aerobics for full gait rehabilitation. **By using the unique advantages of the DST, Covid-19 patients' rehabilitation can be faster and more efficient. It can decrease hospitalization period, vacate hospital beds faster, and ensure a safe discharge to the community.**

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