

# The Art-and-Science of Recovery

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In surgery, the quality of post-operative recovery is no less critical than the procedure itself. Immediately after surgery, a human body enters the ebb phase, during which energy storage from various vaults is borrowed to pay for survival until the body recovers enough to switch to the flow phase when the catabolism stops and the body begins to restore a positive energy balance. Then the patient can return to a normal life in an even better physiologic condition. The recovery pace varies according to the underlying physiologic status of the patient, severity of the surgical insult and post-operative management. Modern peri-operative medicine has learnt that postoperative recovery can be shortened by reducing the ebb phase by down-toning the metabolic response to surgery and enhancing the flow phase by early physiologic stimulation, i.e. early feeding, early mobilisation and breathing exercises. The concept is known as Enhanced Recovery After Surgery or the ERAS protocol.<sup>1-3</sup>

During a pandemic, it is inevitable to spend the national resources in maintaining economic integrity and managing the public health crisis. As with surgical recovery, rehabilitating capability differs among societies. In November 2021, NIKKEI Asia published a COVID Recovery Index which ranked countries and regions on infection management, vaccine rollouts and social mobility. While Japan (score 69.0), South Korea (63.5), Indonesia (56.0) and Malaysia (54.5) did better, Singapore (42.0) and Thailand (43.5) were still at the lower end of the chart.<sup>4</sup> Although Singapore has high vaccination coverage at 85% and superior public health facilities, new infections in November 2021 surged to 3,000–5,000 cases daily, probably due to the reduction of immunity and a mutation of the SARS-CoV-2 virus. Beginning in November, Thailand has opened up for fully vaccinated tourists from 63 countries to enter without a quarantine requirement. The strategy can be viewed as early stimulation of business flow, which should be executed with great care given to controlling the potential damage. By mid-November, Thailand has fully inoculated 49.5% of its population. Daily new infected cases have reduced from the peak of 20,000 cases per day in mid-August to less than 7,000 cases and the daily mortality has declined to less than 50 cases.<sup>5</sup> With the high vaccination rate and the recent spread of the Delta strain, community immunity is expected to be enough for relaxation of social mobility constraints.

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Success in recovery after surgery depends on the patient's adaptation ability to get to a better physiological condition. Similarly, resilience determines how well a society will leap from the cloud of chaos and reach a new equilibrium. The world after the pandemic will never be the same in several ways, especially travelling, communication, working time-and-place, and health system decentralisation. When globalisation slows down in the physical world, it begins to grow in the virtual world like Metaverse. Those who can successfully navigate the recovery period will survive and get to the new level when those who are slower will be left behind, possibly for decades. Successful recovery is then an art in foreseeing future scenarios and the science of adapting oneself to be fit in the new post-pandemic world.

Although it can be expected that Thailand will enjoy the resolution of the pandemic in a couple of months, great challenges are waiting ahead. Inequality in resilience, hidden severities of the economic drawback and political turmoil will post substantial risk to our society. A K-shaped recovery may be inevitable, however, we should actively work to keep the length and the width of the 'K-legs' short and sharp for the whole nation to move on to a new chapter together.

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