For the second week in a row, Justice Ruth Bader Ginsburg “telecommuted” to the Supreme Court, and of course, the blogosphere was atwitter with the political portents. The common thread to the health narrative was that Justice Ginsburg was “slow” to return from her latest cancer experience.

Slow for whom?

Being ill, which requires more energy than being well, seems counterintuitive. But bringing the immune system along with all the other systems of our body to bear against a predator requires more effort to produce more cells, beat and breathe faster, and remove toxins and metabolites. The surgical literature led the way in understanding our increased energy expenditure and enhanced nutritional needs when confronted will illness, because surgery often has a defined beginning. It's unlike a medical problem, like pneumonia or cancer that can sneak up on you, at least energetically. Healing from surgical wounds has a classic time, course or trajectory.

Healing an incision, and whatever rerouting or rearrangements the surgeon has made, provokes an inflammatory response that increases to a maximum at about six weeks post-surgery, and then slowly fades back to your normal over another six weeks. That helps explain why you feel sluggish, out of sorts, and not quite yourself even after the doctor has declared your wounds “healed” and has sent you on your way.

The more significant the surgical disruption the more there is to heal. An incision opening up your abdomen along its entire length is more traumatic and requires a lot more healing than a small “belly button” incision associated with laparoscopic surgery. That is why there is a huge difference between open procedures to laparoscopic ones, from “maximally” to minimally invasive. To the
extent that it's possible surgeons will choose less invasive care.

(Parenthetically, this may help you to understand the much slower adoption of robotic surgery. Surgical robots facilitate laparoscopic surgery. There is no robot involved, unless you believe that a surgeon standing a few feet away and electronically controlling the instruments represents a robot. Robotics extends where a surgeon can safely work, it's more manipulatable, and it's not necessary for many of the common operations. For those of you who read my recent article on innovation [2], both laparoscopy and its robotic sibling are examples of frugal surgery, and robotics is a more frugal form of laparoscopy and it illustrates the effect of diminishing returns.)

The other important factor that we would like to modify is how resilient or frail our patients are when they come to surgery. It makes sense that an athlete will recover faster than a bedridden patient. One problem is being able to define resilience or frailty, the measure physicians use.

We have made a great deal of progress in first recognizing that it alters recovery, and in finding markers that clearly influence an outcome. The tests for frailty include testing as simple as a handshake, and how quickly you can walk a few yards. The difficulty is increasing your grip strength or walking speed, both of which may take a lot longer than you can afford to wait. These attempts at reducing frailty or other risk factors – term pre-habilitation – have met with varying success.

We can improve nutrition somewhat, and we can definitely improve lung function by putting down cigarettes, but frailty is tough to moderate. You have to deal with the patient in front of you. That is why standardize care is problematic. Assembly-line care works best when the parts are all the same quality. When patient resilience varies, so does the outcome. Standardize care designed for the resilient does not work as well for the frail.

I know as much about Justice Ginsburg’s surgery and recovery as any observant citizen. But, and with no disrespect, she is not a spring chicken. Perhaps she is spry, or an active form of frail. But that her recovery extends for longer than her past recovery is not a medical surprise, and the media chatter is just that, chatter. Even in her illness, she’s able to provide us with valuable lessons.

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