Staying fit: a must to be a successful Neurosurgeon

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"A surgeon should have an eagle's eye, a lady's hands and a lion's heart".

-Sir Astley Cooper

When I decided to be a neurosurgeon, I was told that my professional life is going to be very short. At the start you would begin late as it takes long to be a competent one and later due to stress of life and work, soon you would feel either exhausted or due to physical issues would soon stop operating.

Well this doomsday prediction for a career neurosurgeon may discourage new enthusiasts, the seasoned practitioner however knows what it takes to continue your career graph go up for long.

Neurosurgeons need a blend of skills and personal qualities like a high degree of manual dexterity, good hand-eye co-ordination, excellent vision and visuo-spatial awareness, good organisational ability and effective decision-making skills.¹ To achieve this professional requirement and to keep going strong, we need a healthy body and a problem-solving positive thinking mind.

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Neurosurgeons are humans, they too are fallible

In our pursuit for excellence, we compromise on our food, rest, exercises, posture, family and social life. Long working hours, call, and schedule are often inflexible.¹

Consequently, neurosurgeons suffer from acid peptic disorders, backache, cervical spondylosis, obesity, heart ailments, stress and burn-outs leading to change in profession, switching specialities, job drop outs, drug addictions, accidents and sometime sudden death.^{2,3,4,5} Most of the ailments occur due to our negligence and our habit of taking things for granted and some are related to your job.

Recently studies have shown that during critical steps like clipping an aneurysm, a neurosurgeon's blood pressure shoots up to the roof. Stress would physiologically generate tachycardia. It is interesting to see how to control tachycardia associated tremors of hand, an experienced surgeon reflexively controls his heart rate.⁶ However, this adrenaline surge leaves a surgeon drained out at the end of the day. This play of stress creates havoc on health after being exposed over long hours. These damages get amplified when doctors are faced with emotional trauma of false allegations or rife with patients or their relatives for unexpected results. Both body and mind are affected negatively.⁷

Certain tools used by neurosurgeons too, can invite problems. The virtual 3D vision created by microscope, weakens a neurosurgeon's accommodation reflex after prolong hours of usage. Working with loupes make surgeon to bend his neck and stoop forward, which when performed repetitively, can predispose to cervical spondylosis and backache.

Besides, uncompromising behaviour and unpredictable routine of neurosurgeons make them socially isolated and outcasted from friends and family circles. This takes away the emotional support one needs to carry on the intense battle with disease and emotional challenges.

When we are young, we do not realise we may fail one day. But as we age, and we find our friends and seniors falling prey to the unexpected morbidities, we become conscious and want to reverse what we have lost.





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Measures to keep oneself fit and mentally sound

A healthy body and mind can be achieved by consciously following a routine, be involved in a fitness regimen, diet plan, ergonomics at work and spending quality time with family and friends (table 1). It is prudent to make a proper plan and act as we do for our patients.

For a healthy mind, we need to get involved in our social life and provide "breaks" in our ever-busy life. Cultivating on extra-curricular activities and developing on non-neurosurgical passions, also helps in energising one's mind.

The famous adage "Doctors are bad patients" does tell how bad we are in our approach to ourselves. This can however be improved by conviction and perseverance we all neurosurgeons have in abundance.

How our training programs can help

Neurosurgical training programs can help sow the seeds of proper attitude and practice of achieving good health in the trainees in their most receptive period. Besides training in professional skills, budding surgeons need to be coached in maintaining wholesome health. "Leading by example" is the best example of teaching. The faculties by participating in team events, organising social events and guiding teammates can help them build a positive way of life. Residents and fellows should have rosters which allow them time to relax and avoid burn-out. Though residency is the time to work hard but it should not be on the behest of one's health. Rather it should be used to train one's reflexes and prepare for hard times ahead.

Before we help others, we should be capable enough to help ourselves. Unless we are healthy, we won't be able to give our best to our patients. To develop on this, does not need a lot; just conviction, planning and discipline can go a long way in achieving our goals of healthy life.

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Following a routine	Sleep hygiene Healthy work culture Minimise disruptive acts or plans
Fitness Regimen	Regular physical exercises like aerobics, running, swimming, cycling Exercises for eyes, lungs and heart Yoga and stretching exercise Meditations
Proper diet	Avoid junk food and beverages Avoid late night heavy meals and soda Intermittent fasting Increase protein, fresh fruits and vegetables in diet
Ergonomics at work	Use surgeon's chair and arm rest Maintaining posture during work and play Use microscope rather than loupe
Avoiding harmful stress relieving behaviours	Cut down on coffee and soda Avoid smoking and alcohol Avoid sleeping pills
Enjoying Social life	Follow non-neurosurgical passions Spend quality time with families and friends Attend social gathering Participate in team games and community works

Table 1: Interventions for healthy body and mind

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