

RUJUTA DIWEKAR

DON'T LOSE OUT, WORK OUT!

Don't have time
I'll workout tomorrow
I hate gyms. It's too hot
It's too hot for a run. So much work.
But I diet now.
Have a presentation
to finish. Had a late night.
Alarm didn't ring. I'm not fat!
I'm travelling like mad. I don't want
to be a film star. Bad traffic jam.
I've been ill. Summer holidays.
Oh no! Please! Excuse me!
Sorry! Not today.

WARNING: sitting can be injurious to health

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Prologue

Don't Lose Out

'Maut aur tatti kabhi bhi aa sakti hai,' said Javed, my guide on the Kolahoi glacier trek in Kashmir, as he quickly ran behind a rock. 'The most astonishing fact about human beings is that we all live as if we are going to live forever,' said dharmaraj Yudhishtir, and won the life of his 4 brothers in return, goes a story in the *Mahabharat*. 'Life is but a pause between the first breath and the last.' 'The only thing you can guarantee at somebody's birth is his or her death, everything else is unpredictable.'

I am sure that, like me, you have heard and read endless stories and theories and researches on death and life after death. However, all we have access to is our life in its current form and what we do with it. And every moment of our life we are subjected to catabolism, the technical term for breakdown or destruction of our cells. And though we remain fascinated with death and theories around it, we remain quite indifferent to the process of catabolism that is happening in the body even as you read this. Catabolism

can even be called preparation for physical death, but let's make it more accessible to what we are ready to understand and call it the process of ageing. Now all those who wanna age quickly put your hands up, and all those who want to delay it go answer the doorbell. What's this, no hands are going up and nobody is going to answer the door either? Listen, one of the things you can do to reduce catabolism is get more active in daily life. Small activities help in a large way to arrest ageing and the associated deterioration in our jnanedriyas and karmendriyas, but the lion's share lies with regular physical exercise.

Metabolism = break down + build up

Let me explain — life blesses us with anabolism, the ability to build our bodily cells (and also our habits, beliefs, character, destiny and our workout routine). According to exercise or sports science, anabolism and catabolism, the process of building up and breakdown, together make for metabolism, our body's daily energy or calorie expenditure. The Greek root of the word metabolism is *metabole*, which means to change, and metab-

olism does keep changing during our lifetime; the longer time you spend on earth, the lower your metabolism gets. There are many reasons for this, the main one being that you get progressively fat, fatter, who knows currently you may even be at your fattest. Not just that, your fat free mass (bones, muscles, etc.), gets less and less. Why, you ask. Well don't ask me, evolution built in this process of loss of lean tissue and gain in fat mass to ensure that there is no 'overcrowding', matlab to ensure that you die and don't occupy space meant for your offspring. So grandfather marne ke baad bedroom becomes available for the grandchild, get it?

Some of the ways in which ageing occurs are:

1. Skeleto-muscular changes

Ok, I said this before and I want to say this again, we get progressively fatter and start losing out on our muscle or body tone, i.e. lose out on our lean tissue. The size of our muscle cell, or what is technically called as the cross-section of our muscle fibre, reduces or goes through atrophy (shrinkage), while the size of the fat cell increases. This process leads to a change in not

just our total body weight but also in factors that contribute to our body weight. Now, more than ever, our fat mass seems to contribute to this magical body weight number, and, largely, till you get to around 80 +, the number is likely to grow. Post that, there will be an even accelerated atrophy of the bone, muscle and the fat tissue and you are likely to get skinny and will start rapidly losing your strength. The changes don't occur at once, they happen phursat mein, in slow mo. They kind of start once we are in our 30s, accelerate towards our menopause or andropause and then it's a slippery slope from there on. We seem to lose more strength and gain more fat on our lower body first, our legs lose out on strength faster than our hands and we collect more girth around our hips, stomach and thighs. According to me, this happens because, typically, as we get older and richer, the less we want to use our legs. We won't walk, take the bus or run for the train, or for that matter won't even open the door, draw our curtains or walk to the kitchen to get a glass of water. In India, the richer you get the less physical activity you are supposed to do to help yourself, it's not

passed by the Constitution but we live by this like a law.

Can you do something about it? Of course you can, but we will come to that later. For now let's look at what's happening to the bones. Our bone mineral density goes down and our bone matrix starts getting weaker. Our bones are made up of minerals, the most important of them being calcium. Up to 4% of our total body weight comes from mineral weight and this weight starts going down. So let's say you weighed 50 kg when you were 25 years old, then around 2 kg is the contribution from mineral weight. Now you are 50 years old and 75 kg, the contribution from mineral weight will not be 3 kg, in fact if you have gone through the regular sedentary lifestyle it may be much less than 2 kg.

Hope you are getting my point of how **contribution of lean body weight to total body weight decreases and therefore we feel less strong**, or less able to support our own body weight. The bone matrix (think of this like a spiral fishing net kind of structure, in the holes of which minerals like calcium deposit themselves to form a strong dense bone) starts weakening,

almost like a torn fishing net, and our bones, joints, tendons and ligaments start struggling to support our own body weight. Most of the time there is an oedema or swelling, as fluid starts getting collected around our joints, again first in the weight-bearing joints, as the ankles and knees take the max toll. A small slip or fall leads to a fracture and many of us have lost our grandmothers to a hip fracture that led to bed rest and eventually to death.

2. Hormonal changes

Yes, they change, estrogen and testosterone levels drop and you don't need me to tell you this, but one of the major changes is in the insulin sensitivity. Insulin is supposed to be an anabolic hormone, that which helps the body grow, and as this hormone starts getting sluggish, our cells start feeling starved for their daily dose of nutrients, and that's exactly how diabetes makes the grand entry into our lives. Yes, this is supposed to happen at a more 'mature' age, 50+, but as our cars / internet connection / lives get faster and our bodies get slower, we see this as early as 25. No wonder then that chronological age gets more and more irrelevant and bio-

logical age, both the term and its meaning, is what really matters.

3. All the involuntary systems change

Our heart, lungs, digestive system also ‘age’, which means that they perform less effectively under the same workload. For example: you eat 2 wada pavs at 6 p.m. in college, you don’t remember it at 6 the next morning. As a company executive, when you look at a wada pav at 6 p.m. after a sales meeting, all you think about is your haalat on the pot the next morning. Basically you have a heart and stomach for less adventure, less risk and less food.

Exercise to the rescue

Chalo, I can write endlessly about ageing — what I have written about is only the tip of the iceberg. The main reason why I even thought of including this section in the book is because **every Indian has a burning desire to live or die without being a burden** (financial or emotional) on their children or immediate family members. We want to die ‘haste haste’ or after a meal or in our sleep and of course we want to play with grandchildren before that. But we live doing nothing about fulfilling this desire. We condemn spending money on gyms, indulge in morning walks

more for fun than for fitness, have long gaps between our meals, sleep with the TV on, basically make very little time or monetary investment into ensuring that disability, partial or total, will not occur. And this needs to change, because a well-structured exercise plan can do miracles, really. It can reverse ageing or anti-age us by as much as 20 years in as little as 12 weeks. Which means, take that wheelchair away, aunty ji is now gonna walk ulta on the escalator.

Before we dive deeper into the technicalities of exercise, let's get a few things clear in our head:

a) A journey of 1000 miles starts but with one small step: If you feel that you have wasted a lot of time, then do me a favour, don't spend a second more on thinking about when you should have started your exercise program or how you shouldn't have quit basketball / tennis or whatever after Std 10. Just start exercising; that one day that you begin is a stepping stone to the lifelong commitment that you need for exercise.

b) Something is better than everything: Yeah, don't fall into that trap of 'will start post Diwali / weekend /

exam / presentation', so that you can be 'regular'. Being regular is always a challenge and you will need to work at that continuously. Starting a month, day or year later will not make it any easier, it will only make it more difficult. And with exercise, working out 3 days in this month is better than working out every alternate day next month because this whole 'next month' thing is only a fantasy.

By the way, you are not alone, everybody, every single person feels like exercising 'tomorrow'. When I was in China for the Indo-China yoga and health summit, the legendary BKS Iyengar said, 'Every day I feel I will do yoga tomorrow, not today.' So don't blame yourself for feeling like that. If the 95-year-old who took to yoga at the age of 7 or 8 and has been at it daily since then can feel that, then we are only human.

c) Training costs money, so be prepared to pay: Hey! Training costs money, seriously. So just change your mindset: instead of being prepared to pay 'everything to save yourself or your loved one', just pay a little bit every month, to your trainer / gym membership / yoga class, etc., and save your wealth by ensuring good health.

The brain is pre-programmed / likes short-term awards

My guide Javed told me fascinating stories about the strife in Kashmir while walking up with me to Kolahoi glacier in Lidder valley. He had immense respect for the Indian army and believed that Kashmir would always be let down by the governments, be it at the Centre or the State. Politics, he professed, was the same everywhere and politicians by jaat are harami. The army, he said, was like the aam Kashmiri, getting crushed between Centre and State, but like the Kashmiri, the army is dil ka saaf and jabaan ka pucca.

Seeing my surprise at this statement, he then went on to narrate an incident that had taken place a few years ago when he was travelling as a horseman with some yatris on the way to Amarnath. At Chandanwari, the base camp, there was random firing in the night by terrorists, and 6 people inside Javed's tent died. Only Javed and his friend, another horseman, survived; stroke of luck, he said. The next thing they know, some officers from the Indian army barged into the tent to inspect what had happened, and on finding 6 dead bodies, one of the officers hit Javed's head with the butt of his gun. His ear bled all night. The next morning Javed went to the army camp, ear still bleeding, and complained to the 'bada sahib'.

The bada sahib said, ok, I will punish the guy who did this to you. The soldier who had hit Javed was made to stand in dhoop with his gun raised over his head for 3 hours. If he lowered his arms even for a minute, an hour was to be added to his punishment. Instant punishment and knowing whom to trust is what made the Indian army the hero for Javed and all

other horsemen on that journey. ‘He will now think before he raises his gun,’ Javed winked. Compared to the humiliation he faced and the wound still visible on the side of his ear, a 3-hour punishment to stand in the sun with a gun raised hardly seems ‘fair’, but the fact that there was an instant response was the deciding factor for him.

I feel it’s exactly this part of the brain that gets used in most weight loss / exercise plans. You get people to work hard and promise a ‘reward’ that is not tangible or seen or recognized like better flexibility, ability to run faster, lift heavier weights, etc., and it doesn’t hook the audience as much. But currents on a machine, 15 minutes in the steam and an almost zero-calorie diet with the ‘reward’ of a 100g lost almost every single day on the weighing scale does the trick. The brightest and smartest people who would otherwise recognize that this is just water weight lost and the fat is not moving seem to fall for this reward system. It’s because the brain is pre-programmed for the instant reward / punishment thing. That’s also the reason why people want that pastry at that very instant; even if it makes them feel terrible for hours later, the fact that at that moment it rewards, does it for them.

It’s important to understand this aspect of the brain when you commit to a fitness journey. It’s your body after all, and not some game you are playing where you need an instant reward / punishment system in place. A real change in your fitness levels takes time and is 100 times more rewarding, meaningful and sustainable than 100g lost on the scale.

How exercise anti-ages

Every time you work out, your body goes through microscopic breakdown, a catabolic reaction. The muscular tissue which has gone through breakdown is then repaired by the body (anabolism), the process is called adaptation, and if your body is convinced that you are going to be regular at exercise, then it ensures that it repairs and rebuilds enough tissue so that the next time you work out at the same load or training intensity, no breakdown will be caused. This leads to **hypertrophy or increase in the muscle tissue**, and builds density in the bones, reversing the very process of ageing. **In short, working out is a catabolic process that promotes anabolism.** As long as you are working out at the right intensity, the anabolism process or the calories required for the repair, rebuilding and maintenance processes will be much more than the catabolic process. So you will be reversing the process of breakdown or ageing in the body by proving to your body's intelligence that you are using your muscles so it should not lose them or break them down or go through atrophy.

Will all this also lead to weight loss? What do you think? Of course. For one,

working out itself is a calorie-burning process, then the repair, rebuilding process is another calorie burner and this process takes up to 48 hours at times, which means you burn more calories for 2 days post a workout session (you will learn details later in the book). And to top it all, because your workout changes your body composition or ensures that you have more muscle as compared to fat, it accelerates your basal metabolism too. Without working out, a sedentary lifestyle will cause you to have more fat than muscle and will decrease your BMR. Because **fat is an inert tissue, it doesn't demand calories from your body to maintain itself**, it is easier for your body to keep it vs. keeping muscle.

The other things that can put you in an anabolic zone are:

A good eating plan: Read *Don't Lose Your Mind, Lose Your Weight*. When you are on a low cal / low fat / low whatever diet, you breakdown much more in your body than your ability to build up, you feel so low on energy, you can't even think of gymming or lifting your hand to straighten your hair, result — ageing and accelerated ageing because of fat deposition. A diet that is high on

nutrients makes you feel in the zone to exercise. When you exercise you break down yes, but building up processes cost more than break down, result — fat loss + younger skin, hair, face and waist.

Good quality sleep: Read *Women & the Weight Loss Tamasha* for details. An irregular bedtime is the biggest contributor to skipping exercise. Not just that, all the anabolic hormones (those which help your body repair, rebuild, maintain, etc.) surge in the night. With poor quality sleep, you don't have enough anabolic hormones like growth hormone etc., and it results in a fatter and older you.

Healthy relationships: Come on, have a stressful boss or an unstable partner and you will age quickly. But if you are 'boring' enough to have found your calling early in life both on the personal and professional fronts, then your catabolism or breakdown process stays low and your anabolic or 'happy states' dominate. So there you go, don't like the wrinkles under your eyes, blame your spouse;-).

The exercise high

'Ok, now even I can tell you something "abnormal"' smiled Smrithi, my friend from Darjeeling who belongs to the Limbu tribe, on

learning that I, and all of us from Konkan, believe in ghosts, and that my grand-uncle's rationale was if I existed, so did the ghosts. 'You know after 5 days of the death of a loved one, we sacrifice a boar and throw a party where all the grieving members of the family sing and dance.' I winked and giggled and exclaimed, 'Get up and move on with life, nice strategy.' The sacrifice of an animal is common amongst some tribes in India, but the dancing intrigued me and suddenly a neuron jumped in my brain and said — 'the runner's high'. The runner's high is actually both gym and lab lingo for the rise in 'feel good' chemicals in the brain. Depression or feeling low is marked by a decrease in serotonin and norepinephrine, and exercise (or dancing, like in Smrithi's tribe's case) increases the exact same neurotransmitters. So you can actually work out or dance your way out of depression and sadness. Studies have shown that exercise is actually much more effective than anti-depressants as a form of therapy, with you looking better as the only side effect ☺.

But forget all that, learn this, **more catabolism than anabolism = fat deposition**. Which means that if the catabolic component of metabolism is higher than the anabolic component then there is an increase in the body fat stores. And the only thing that you can do in your daily life to ensure that there is a big surge in the calories or energy required by anabolism, is work out and work out at an intensity that is respect-

ful. In short, don't crawl when you can walk. The other side of this equation, the positive side, is if anabolism is more than catabolism, what will be burned darling, or where will be the deficiency be compensated from? Fat tissue again. So know that you are right when you don't trust those creams or surgical procedures for anti-ageing, they can't reverse ageing, coz they increase catabolism and decrease anabolism. **The only way out is working out, the only legal, sensible, sustainable way to increase anabolism and to anti-age.**