



ADD 15 YEARS TO OUR LIFE
CAN WE? OF COURSE, WE CAN!!

Add 15 Years | 3 Main Heart Tests to Add 30 More Years to Life

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HINDI | ENGLISH | TAMIL | TELUGU | SPANISH | PUNJABI | KANNADA

PREFACE

For last several years, I have done several projects in Gurgaon and was wondering how I can promote the health, especially of middle class educated community. And, when I talked to my staff, I came across one story after other, where people just died suddenly from the heart attack.

Why I am so shocked? After 30 years of practice in USA, I have never really come across any case of so-called 'sudden death' in USA. If anybody who has died, it was always anticipated. Every death in USA has to be signed by an MD/Doctor. And at times, I have signed 20 death certificates a month, mostly of the people in their 80s and 90s

With some more research, it became obvious to me that all these people have had red-flag signs like either a sedentary lifestyle, smoking, drinking, high cholesterol etc. or not seeing a doctor for several years and not getting any testing done.

When we develop diabetes or blood pressure or any other situation, we have the time to find out about it and there is absolutely no risk of dying suddenly from these conditions

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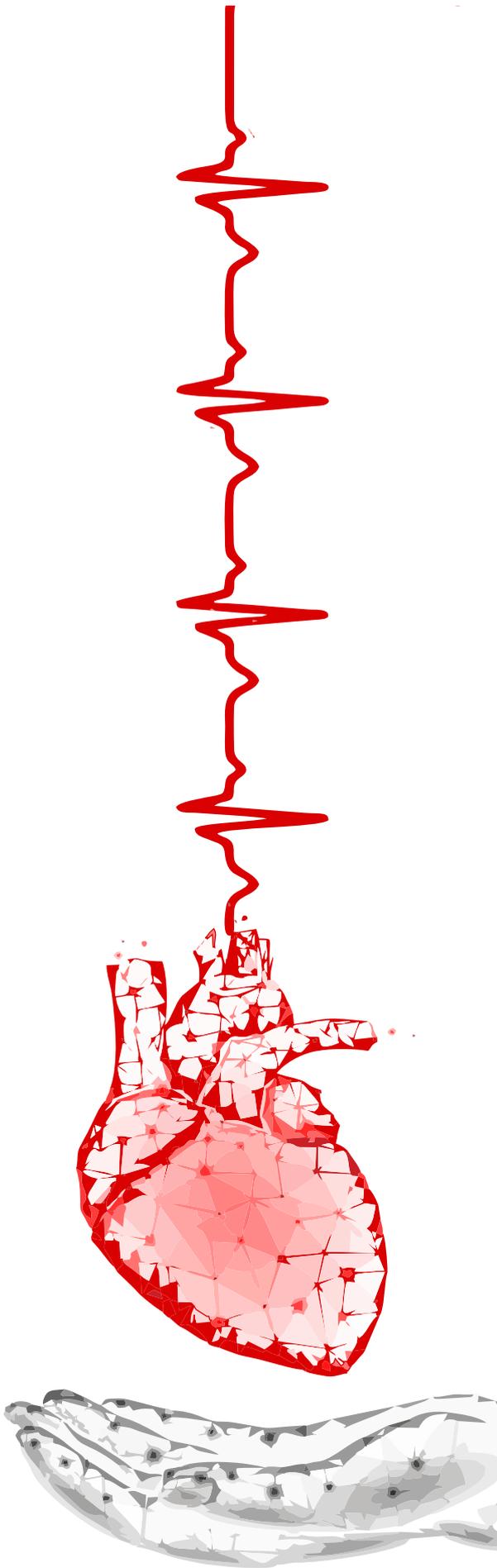
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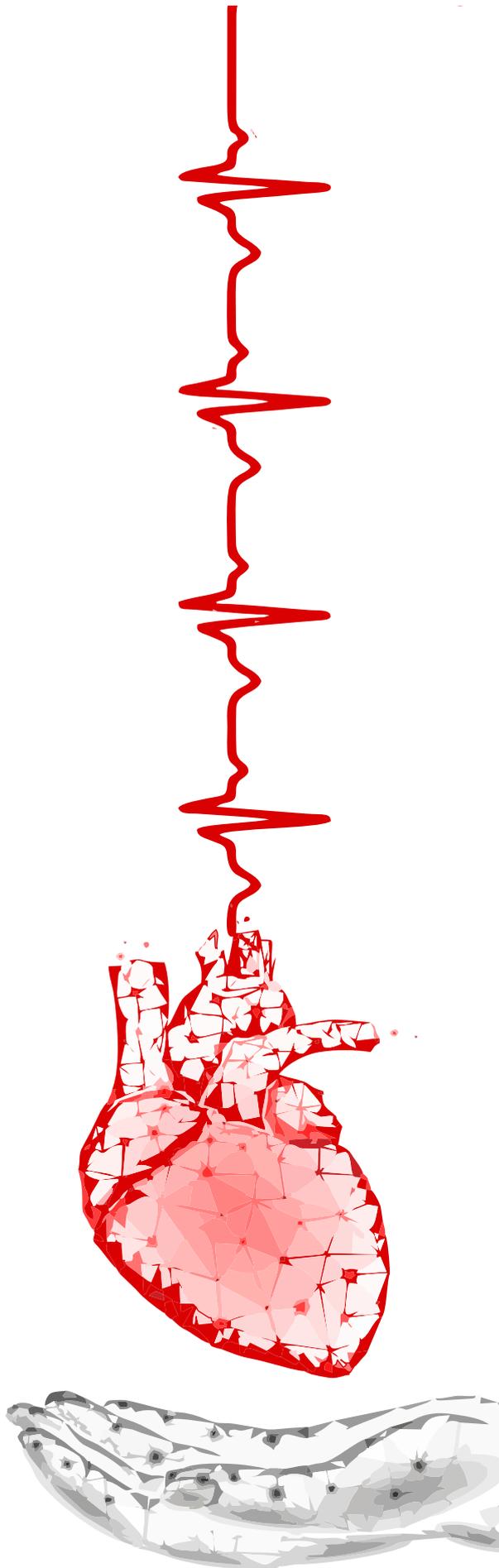
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Chapter 1 (A)

**Gone in 5 minutes or live 30 for more years – your choice
A heart attack can take our life in less than 5 minutes**

Think about it!

“I, after flying from US (home country of my children or a place where my children were born) landed on January 2019 in Delhi, India to be with my family and my mother who is almost 90 years old. My beloved Delhi, where I was born and grew up.

I found out my niece (daughter of my first cousin from my Mamaji’s side is getting married.

I was so excited and looking forward to meeting everybody in my family as it’s a custom on these types of occasions.

Then, all of a sudden, in a few days when my Mamaji’s entire family was getting together for one major ceremony, I got the news that after coming back late night from the engagement ceremony, my Mamaji’s son (who was only 65 years old) never woke up

I totally shook up. Years of memories flashed in front of my eyes. Anybody dying before 85 years is very upsetting for me. You may be thinking he died in peace, but with heart management, he could have easily lived up to 20 more years. He was otherwise in good shape. He retired as a chief engineer and was working actively.

Nothing in this world takes you away so unexpectedly, except the heart attack.”

“I have a close friend in my hometown in US. His wife was getting her son ready to go to middle school who was getting late for the class.

My friend was taking shower then and it was getting really late. His wife got anxious and started looking for why he is taking so long and when she looked for him and opened the door of shower, she almost fainted due to shock, as he was gone.

It was also such a shock for all of us in the town!”



Chap1(A)Fig1



Chap1(A)Fig2

“One of my friend (who is on a high position in IBM Gurgaon), while I was in Gurgaon few years back, he told me that his colleague went home (happily) and he never came back the next day. Again, a youngish person!”

“My nephew was waiting at the Delhi railway station with his wife and kids to go to Mumbai to visit his college class-fellow from Pune, and his children were looking forward to a nice vacation.

Before he could board the train, he got a call from Mumbai not to come over there as his class fellow (and friend) was now planning to come to Delhi because the friend’s brother-in-law suddenly died of the heart attack. I believe that his friend’s brother-in-law was younger than 50 years old.”

Chapter 1 (B)

**Gone in 5 minutes or live 30 for more years – your choice
A heart attack can take our life in less than 5 minutes**

Heart attack is one situation where we have the risk of dying suddenly, without any past symptoms.

It is especially true in India because access to the MDs, hospitals, or ambulances is almost impossible to get in time which is a sharp contrast to US where ambulance comes right away, and then medical technicians are highly trained, and they start the treatment right away which can be lifesaving.



Chap1(B)Fig1

Chapter 2

Age 30 to 50 most ignored years – you bet!! And, we have almost no choice!!!

Age 30 to age 50 are the most ignored years of our life but then, if you really look at it like we have no choice.

We finish our education at around 26 years of age and get a good job usually before marriage.

Most of us are married by around 26 years to 32 years of age, and, after marriage we have about 2 kids, (even 1 only, usually wife's choice !!!!, while grandparents want at least 3).

So, 2 kids by 35 to 37 years of age (based on boys' age) and Indian lifestyle is very competitive, so we all have to work hard.

Life has become very costly and becoming costlier in India.

So, everybody is under pressure to work for long hours and even on weekends too. Offshore and multinational companies make it even more demanding for youngish professionals.

If we lose a job, it may not be easy to find another job and there is no back-up support except parents.

At least from Monday to Friday, we go and work for long hours but then, sometimes we end up working from home over weekend also. And so, long working hours and other family demands, take a toll on us.

I am excluding doctors because they are well aware of health issues. But unfortunately, even youngish Indian doctors are caught up to in day to day life.

Let us not forget that when we are getting into our 30s and 40s, our parents are getting older and being a son of the family, family obligations also fall traditionally on the Indian sons.



Chap2Fig1



Chap2Fig2



Chap2Fig3

So, with multiple obligation of his parents, of his own family, his children, job, financial pressures, high cost of schooling starting from even nursery years for his kids and add 18 years of high school for children till they stay at home and need full attention from both parents till the youngest child goes to college. Before we know we are already 50 to 55 years old.

Chapter 3

Everybody in corporate environment is happy

It is my experience over the last 10 years, I have figured it out that everybody, especially in the corporate environment is happy -

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General Health	CBC, Urinalysis
Diabetes	HbA1c
Thyroid	TSH
Lipid	Triglycerides, Cholesterol Total, HDL, LDL, VLDL, LDL/HDL Ratio, Cholesterol Total / HDL Ratio
Kidney	BUN, Creatinine
Liver	SGOT, SGPT, Bilirubin Total
Stress	Cortisol
Fatigue	Vitamin B12

BOOK NOW ADD TO COMPARE

To get yearly tests
And if All tests are normal
And, if one feel very healthy
(lack of prolonged fever or pain etc.)

Well, that may be true, but that absolutely does not tell you anything about the heart.

Chap3Fig1

69% Off	70% Off	56% Off	61% Off
Basic Screening Package	Healthy Indian Days Special Package	OnePlusOne Extended Package 1599	Healthy Indian Days Special Couple Package
Includes : 60 Parameters	Includes : 76 Parameters	Includes : 74 Parameters	Includes : 76 Parameters
<ul style="list-style-type: none">Blood Glucose FastingComplete HemogramKidney Function Test	<ul style="list-style-type: none">Blood Glucose FastingComplete HemogramKidney Function Test	<ul style="list-style-type: none">Blood Glucose FastingComplete HemogramKidney Function Test	<ul style="list-style-type: none">Blood Glucose FastingComplete HemogramKidney Function Test
+ Know More	+ Know More	+ Know More	+ Know More
₹3430 ₹1049	₹6670 ₹1999	₹3630 ₹1599	₹6330 ₹2499

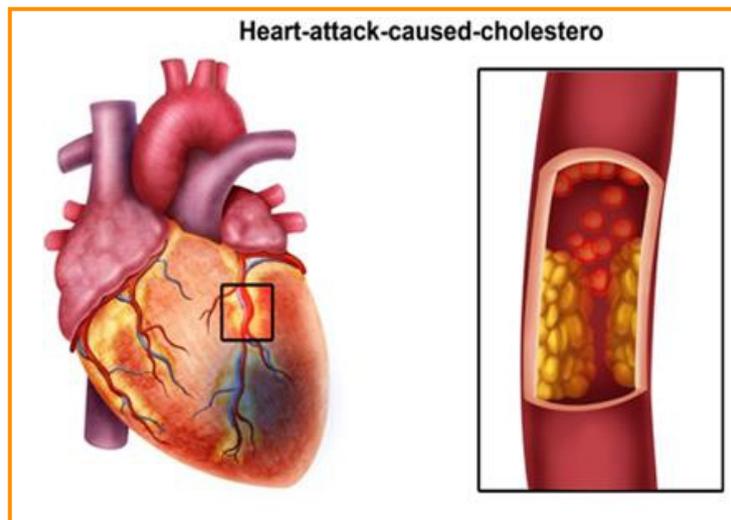
Chap3Fig2

Chapter 4

Most important question is what really happens when we are having a heart attack?

Let us start from the beginning:

Heart attack usually means one part of the heart is suddenly cut off from the blood supply and it also effects the electrical conductivity of the heart. Then all of a sudden, our heart instead of beating or pumping regularly as an effective pump cannot do that anymore and if we do not provide management quickly, very soon the heart pumping and beating is not effective to pump the blood to the brain and within 2 to 3 to 4 minutes we lose consciousness. If brain does not get blood and oxygen for more than 5 minutes, it is very difficult, almost impossible to recover.

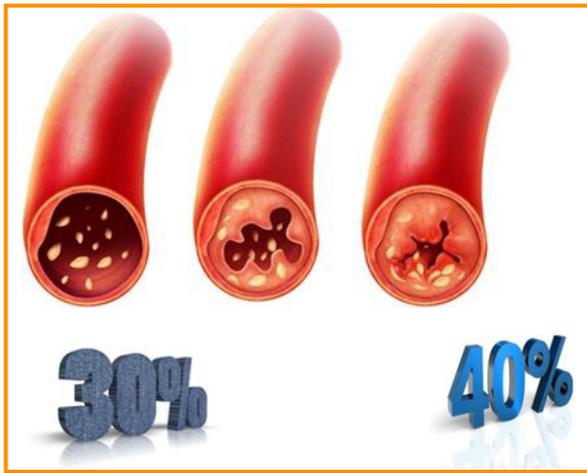


Chap4Fig1

Chapter 5

What does it mean that part of the heart gets cut-off from the blood supply? Can this happen over just couple of years, without we knowing about it?

It takes at least 15 to 20 years before we get to that point where heart arteries or the tubes (which supplies blood to the heart to take oxygen and food to the heart) start getting blocked and then one of them becomes blocked enough that it is no longer able to supply food and oxygen to a part of the heart. As they get more blocked, they can get suddenly blocked, with a cholesterol plaque, which breaks off and goes and blocks the smaller artery branch and affects small part of the heart.

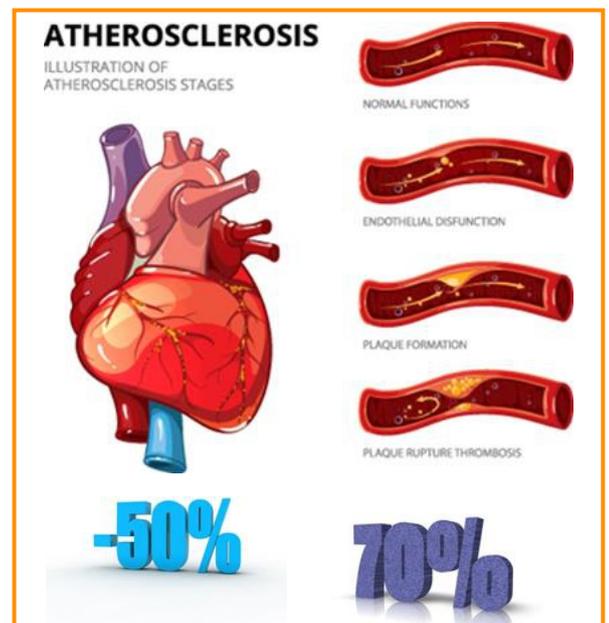


Chap5Fig1

There are only three tubes of the heart which supplies blood to the heart.

Blockage starts early in life. As we go through years and for whatever reasons (which is explained in a separate book), arteries start getting blockages.

And, over few years they get 10% blocked, Then, over next few years they progress to 20%, And, over the next 5 to 10 years they progress to 40% or 50%, Then, over another 10 to 15 years they progress to 70% or more.



Chap5Fig2

Chapter 6

And, this is most important life-saving secret: Only when the blockage of heart arteries/tubes is more than 70%, we may have chest pain and heart attack

The following statement is from the Harvard Medical School publishing:



Chap6Fig1

“But it’s important to understand that a “normal” stress test can’t rule out the chance that a plaque will later rupture and block an artery. The proverbial tale of the man who passes a stress test with flying colors and then has a heart attack a week later.

Stress testing detects arteries that are severely narrowed (70% or more).

This is what causes symptoms. Heart attacks often result from lesser blockages that rupture and form clots.”

Our body and heart with up to 70% blockage of heart arteries, get used to day-to-day routine life stresses.



Chap6Fig2

Most of us ignore the chest pain anyway.

One fact is that the chest pain usually occurs only when the heart is stressed, or we stress ourselves for more than usual stresses of day-to-day routine life.

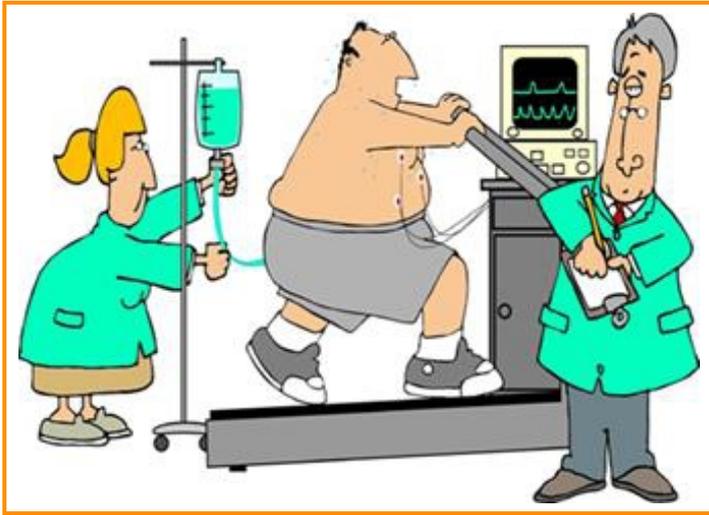
And when we do have chest pain and it disappears with rest etc., we may just blame it to acidity, or just rationalize it away without taking it seriously.

Or even if we worry about it, we just do not like to go to doctors as none of us trust doctors in India.

And, I can say that in the back of our mind, we are also worried about what doctor is going to say.

Chapter 7

We do not want to know!!! Yes, it is true - we do not want to know of imminent heart attack!!!



Chap7Fig1

May be, it was ok to not to know 30 to 50 years ago as nothing much could be done in India.

Not many hospitals

Not many trained heart specialists and surgeons

And, literally no technology

But today what we do not know will definitely hurt us costing us our life, when we could easily live 30 years more, if we took the right steps.

What we do not know may become the reason for us to drop dead suddenly and leaving behind young children, helpless wife and rest of the family in a state of shock.

Almost in every family older men have disappeared, years before their wives. I see women in 70s and 80s whose husbands are all gone!!!

There are multiple reasons, but premature heart attack and sudden death do stand out.

Chapter 9

What has changed today in 2019?

And now 'Everything' has changed 200% in the last 30 to 40 years.

Most important thing that has changed is -

Establishment of the private hospitals every 2km in cities and highly specialized doctors every km in cities Dramatic increase in prosperity And, small families with dramatic decrease in childhood mortality.

We definitely, despite what we may say about diabetes and blood pressure, we are definitely are living longer. Life expectancy has dramatically increased from around 30 years in around 1950 to 65 years plus, today in 2019.

Today we have the excellent technology and we have excellent medications!



Chap9Fig1



Chap9Fig2

Chapter 8

Old fashioned medicine

In India, culture is dominated by our parents and grandparents, but their time was so different and their years of growing up were dominated by cholera, jaundice, typhoid, tetanus, malaria and of course heart attack.

Our parents and grandparents believed in ginger, lemon, turmeric, neem leaves, prayers, and fasting etc.

They are good supporting measures and may be for the following reasons they were not: -

For management of heart attack and other serious illnesses

There were Not many hospitals

Not many qualified doctors

Literally, no training and no technology

And, no important medicines

Every family was focused on young children as every family lost 2-3 young children out of 9 to 12 children.

Cardiology was not developed as a specialty at all And, cardiothoracic surgery was really in its infancy Even ultrasound came to Delhi [power center of India] in close to 1990 before privatization i.e. before 1990, unemployment rate was almost 60% and so day to day survival issues were more important.



Chap8Fig1

Chapter 10

What is stopping us to take advantage of all the resources available to us today?

Today, with all the resources available, there is no reason why middle-class families with college education cannot live up to 85 years easily



Chap10Fig1

What is stopping to take advantage of all the resources available today?

We hate to go to doctor.

We just do not trust doctors.

Even more important reason is that we will not hesitate spending one or two lakhs rupees, but we are not sure if our money is well spent and again that we will not need to spend that money all over again because of the wrong diagnosis or not proper use of the money of still limited resources of a middle-class family.

Then even if we do go to two or three different doctors- at least today, every doctor tries to tell us different things about what is wrong with us.

No wonder we cannot trust Indian medical professionals with our no check and balance medical profession at this time.

To be honest, we have a huge check and balance in US and medical profession is highly well defined.

In US, sooner or later we will pay a very huge price either for our lack of knowledge or distorting the medical facts. We will be questioned by somebody sooner or later, why we reached at that conclusion despite the correct medical knowledge saying otherwise.

Think about it!

When we talk about check and balance, think about the very fact that the former United States President, Bush, the most powerful man in the world, could not bend the rules to protect his own twin daughters from the law of the land.

This was the news in May of 2001.

The poor Bush daughters went to get a drink on Wednesday night. They were caught in a trendy Mexican restaurant called Chui attempting to order beer. At that time, both Barbara and Jenna, the twins, were 19 and the drinking age was 21.



Chap10Fig2

As the story continues, the waiter came to take their orders and Jenna apparently presented a driver's license she has brought from an older friend.

One has to understand that president's daughters are always protected by the secret service, probably manager of the establishment figured that out and while craving for some publicity phoned the police.

Believe it or not, police had an obligation to investigate and it was investigated by Texas Alcoholic Beverage Commission and the daughters were fined \$51.25 and sentenced to eight hours of community service and six hours of alcohol awareness process.

The community service would very well involve cleaning the roads side and picking up the trash while all the time the daughters are protected by the secret service.

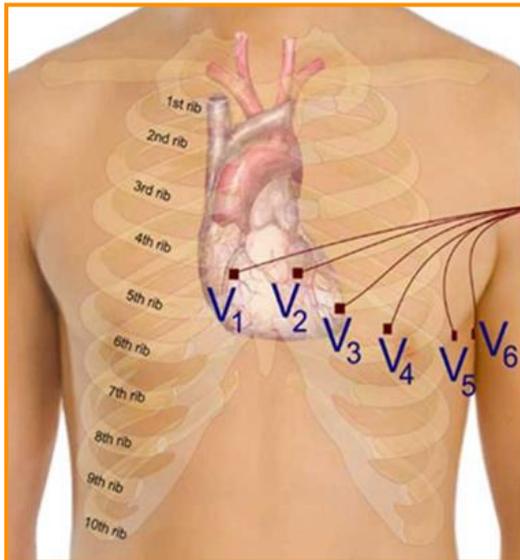
Years later, when my own daughter went to Berkley, I ended up asking her the question that does every girl carries a fake ID and low and behold her answer was- of course dad, every girl carries a fake identity till she turns 21.

Now, it was my turn to sympathize with President Bush. Thank god I am not the president of the country

Chapter 11

What are our best options in relation to our heart and health in 2019?

Coming back to the current situation or focusing on the current situation and considering all the issues, what are our best options in relation to our heart and health?



Chap11Fig1

The first answer obviously is not to have a heart attack. The second answer is at least not to be caught unprepared. The third one is if you are 35 years and older and married and have children, then please do buy at least 2 crore rupees of life insurance. In case of your sudden departure to heaven, at least wife and children would not feel so helpless.

And, please spend Rs 12,500 for 3 simple tests (ALL NON-INVASIVE; NO CUTTING, NO WIRES INSIDE THE BODY FOR ANGIOGRAM) at age 35 and every 5 years afterwards.

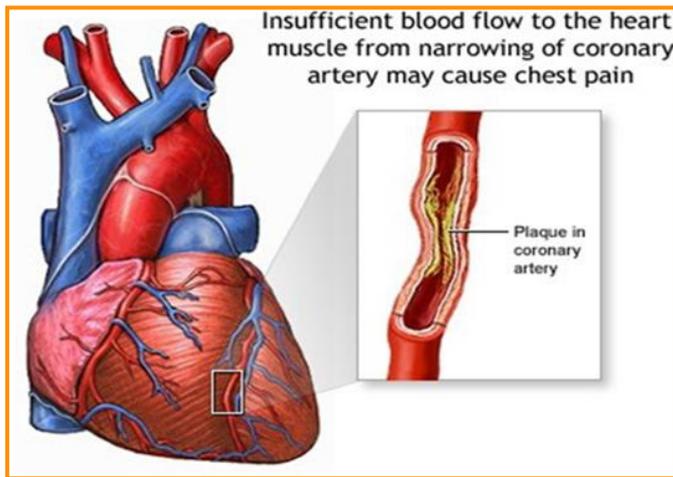
If all tests are normal, it will guarantee us FREE FROM HEART ATTACK life for next 5 years.

Chapter 12

Why age 35 for males/men in India?

Why I have chosen age 35?

I will agree that till age 35 statistically the risk of getting a heart attack is very low and if we start screening ourselves at 35 years that will be an excellent baseline of our heart function.



Chap12Fig1

When we repeat these 3 basic tests for the heart every five years, we can compare these tests with our heart health 5 years ago and if there are any changes, then we can pay more attention and get more testing if needed or take steps to reverse those changes.

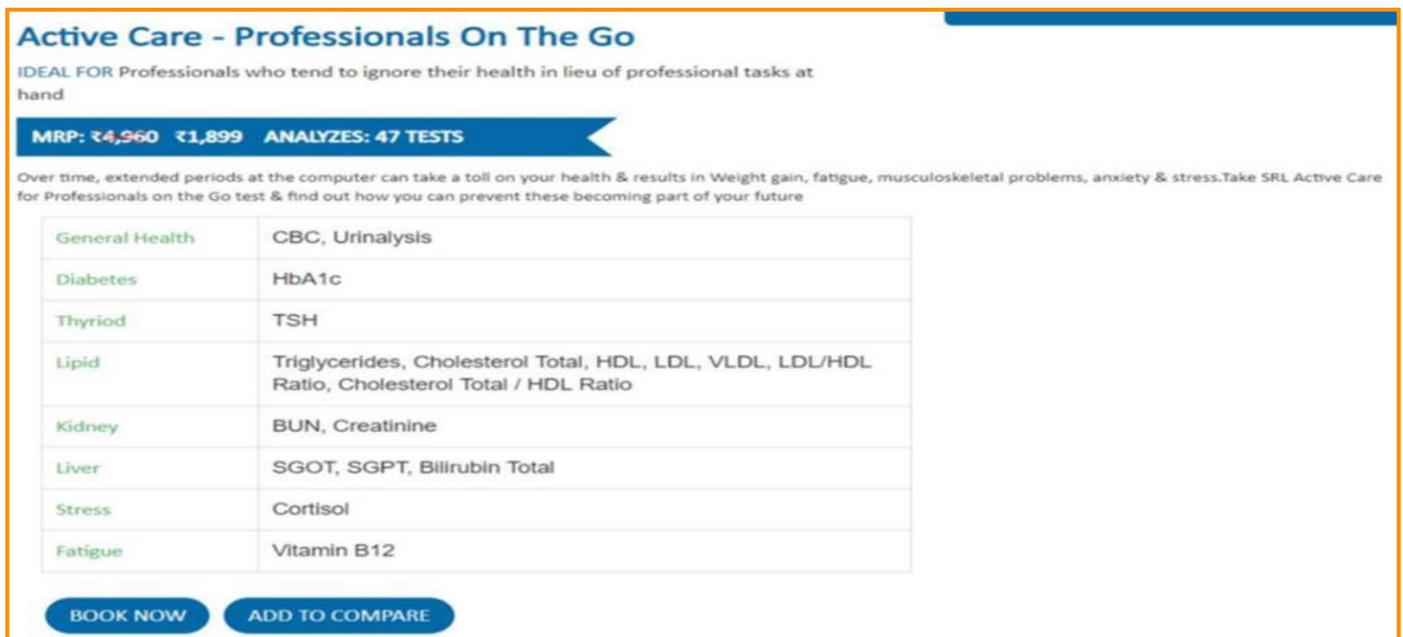
It will cost today only Rs. 12,500, give or take, and we need to spend that money only once in 5 years.

Chapter 13

A little insight into these 3 tests

First two tests are absolutely simple tests and the third test itself is also noninvasive where we do hang water and put color/dye in that water which goes in the blood and goes to the heart. Then CAT scan takes quick pictures of the heart arteries filled with colored water.

A software makes a three-dimensional image and if there is any blockage we can clearly see it. If you really look at it (I have looked at that three-dimensional video filling of my arteries with blood) you can clearly see that they smoothly fill up with the blood. This means, there is no blockage.



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General Health	CBC, Urinalysis
Diabetes	HbA1c
Thyroid	TSH
Lipid	Triglycerides, Cholesterol Total, HDL, LDL, VLDL, LDL/HDL Ratio, Cholesterol Total / HDL Ratio
Kidney	BUN, Creatinine
Liver	SGOT, SGPT, Bilirubin Total
Stress	Cortisol
Fatigue	Vitamin B12

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Chap13Fig1

If all these three tests are normal which tells you different things about the heart, then you absolutely have no risk of getting heart attack in five years. Seriously, you are not going to get it, almost guaranteed!

Literally, guaranteed! Miracle literally guaranteed!

Just like I said, it takes 15 to 20 years for blockage to happen. Further, blockage can reach from 20% to 70% or 80% in at least 10 to 15 years. So, if arteries are clean today, then after five years you may have arteries which are about 20% blocked. Then you can take steps to reverse that blockage or slow it down.

Chapter 14

What is the whole purpose of adding 15 years to our life?

The whole purpose is not to just live longer, but our purpose is to live a healthy life and not to die suddenly.

Grow old gracefully, peacefully and in a healthier way till we are at least 85 to 90 years old which can be easily achieved today with all the knowledge and technology available to us.

AND ONCE AGAIN- ONLY THE FIRST YEAR AND THE LAST YEAR OF OUR LIFE, WE SHOULD NEED HELP.

First year is obviously taken care of by our moms (we sure are running around in our second year and moms trying to catch us!!!)

And last year- who says we cannot plan for our last year ahead of time!!!

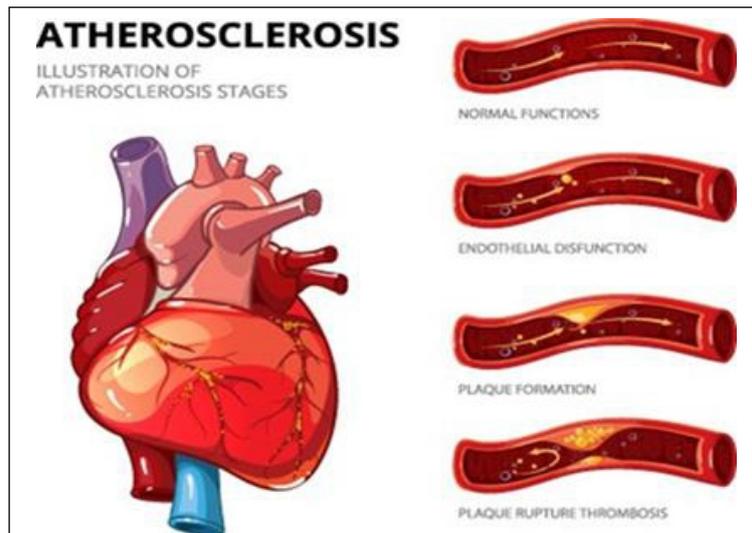


Chap14Fig1

Chapter 15

What tests we are talking about that can add 30 more years to our life and take away the risk of sudden death?

The three tests which cost only Rs. 12,500 in today's market which is absolutely worth it if we can live 30 more years longer that can very well translate into 10 to 15 more crore rupees of earning for us with all our knowledge and experience exponentially increasing in our wonder years.



Chap15Fig1

Chapter 16

What about women?

I will choose women testing starting from age 40 and every 5 years as it is a wellknown medical fact that female hormones do protect women from heart attack.

Chapter 17

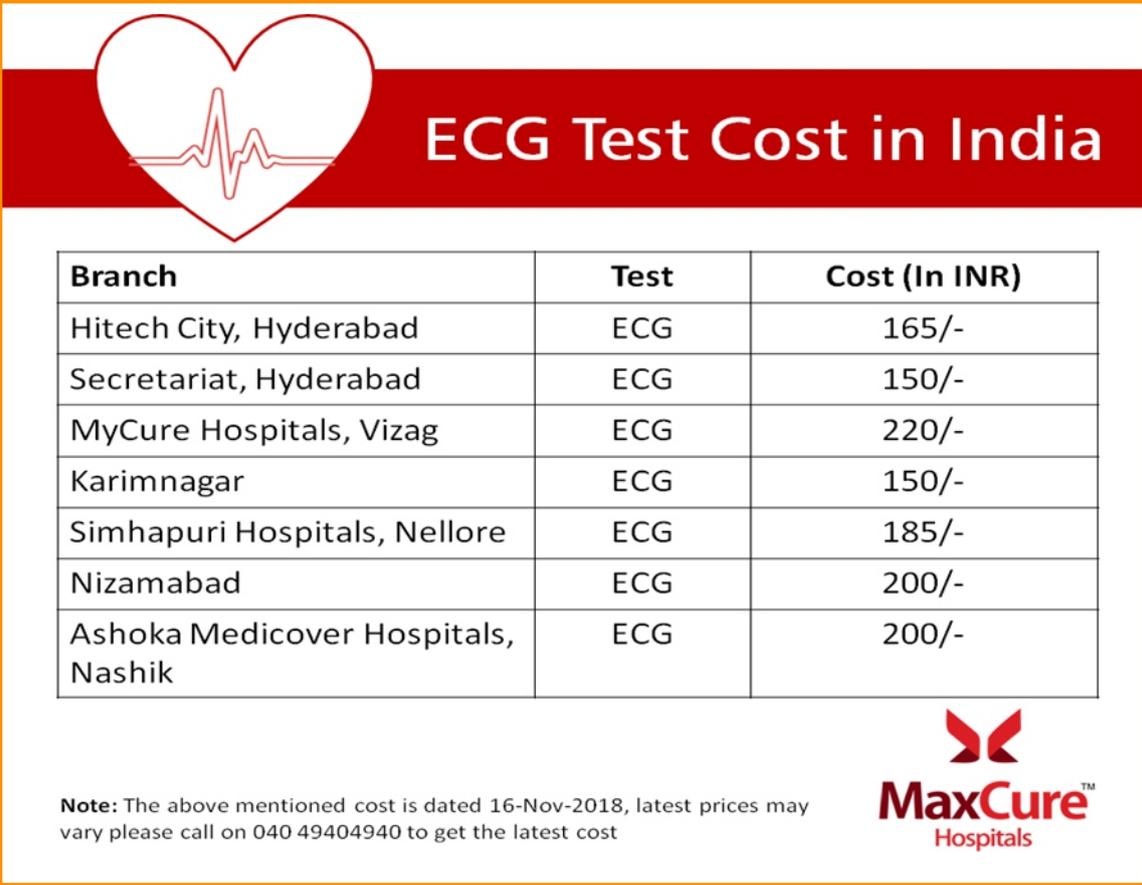
Let me explain these three tests

1. What they do?
 2. What they tell us?
 3. Why they are so important?
 4. Why I recommend them for every Indian who is 35 years or older, every five years?
- It is your choice, it is your life, and it is your heart.

Chapter 18

These are the three tests

1. ECG or EKG
2. 2-D Echocardiogram/Ultrasound of the heart
3. CT Angiogram



The graphic features a red heart with a white ECG line inside it, set against a white background. To the right of the heart, the text 'ECG Test Cost in India' is written in white on a red background. Below this is a table with three columns: Branch, Test, and Cost (In INR). The table lists seven different hospital branches and their respective ECG test costs. At the bottom left of the graphic, there is a note about the date of the cost information and a contact number. At the bottom right, the MaxCure Hospitals logo is displayed.

Branch	Test	Cost (In INR)
Hitech City, Hyderabad	ECG	165/-
Secretariat, Hyderabad	ECG	150/-
MyCure Hospitals, Vizag	ECG	220/-
Karimnagar	ECG	150/-
Simhapuri Hospitals, Nellore	ECG	185/-
Nizamabad	ECG	200/-
Ashoka Medicover Hospitals, Nashik	ECG	200/-

Note: The above mentioned cost is dated 16-Nov-2018, latest prices may vary please call on 040 49404940 to get the latest cost

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Chap18Fig1

Chapter 19

ECG or EKG

Bottom line is what do we exactly want to know from EKG or what is the most important things we want to know from EKG?

Same thing, what do we want to know from echocardiogram or ultrasound of the heart?

What is the most important thing we want to know from echocardiogram?

What is the most important thing we want to know from CT angiogram?

The most important fact about EKG that we will not realize is that, it is like a finger print. It remains same every month. We do it every six months, we do it every year whenever we do it, it will look exactly the same. So, any change from the baseline, so called 'baseline' will immediately make us doctors jump up that why it has changed!

Second thing, EKG immediately can tell us the rate and rhythm. Rate is usually 72 beats per minute and rhythm is very, very regular. If you look at the two tallest _____ and take a scale, you will see the distance between is always very equal.

The master electrical switch which is SA node in the heart, when it beats or when it depolarizes or when it sends out electrical signals, it sends out electrical signal very rhythmically and you have to understand for a heart to pump to function, it has to contract and relax in a very coordinated manner, very rhythmically.

Believe it or not, EKG can also tell us if we had a heart attack in the past. It definitely tells us if we are actively having a heart attack, but we are not talking about EKG during the chest pain or so-called 'heart attack'.

You may not focus on this, we get our EKG and forget about it. We cannot even find it the one we had two years ago or five years ago. But, you have to understand comparison between different EKG or the past EKG. It is the single most important medical factor that helps us to focus on any early changes.

The changes may be there, but they may be very early changes and they may still fall within the normal change from the normal baseline. But then, if your EKG is same every year and now if there are some changes, then we need to figure out why this has happened!



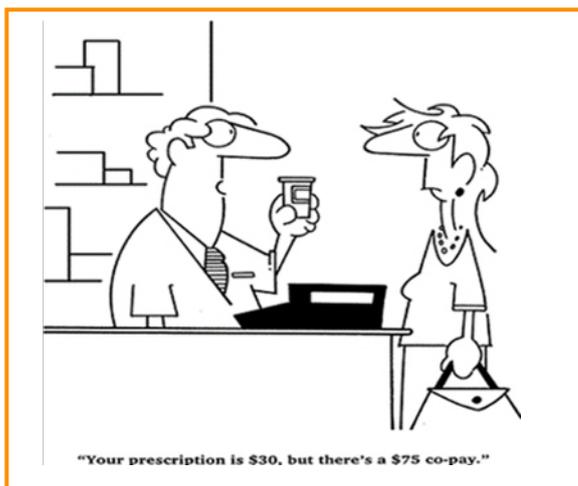
Chap19Fig1

Suppose, you have a high blood pressure for 20 years, you do not know about it as you do not have any symptoms (which is true in case of high blood pressure that it increases so slowly, we do not have any symptoms for years. I have known people with high blood pressure for 20 years and feeling absolutely very healthy. But it does not matter, it does not mean that body is not responding to the high blood pressure. It does!

EKG is one way we can find out whether high blood pressure is happening in a year or two or has been there for 15 to 20 years. EKG will clearly show this. There are definite changes in the EKG which shows that high blood pressure has been there for long time.

Again, for such changes to happen, most important reason is high blood pressure. You have to have high blood pressure for a long time i.e. for 10 to 15 years before such changes happen. They happen very gradually, very slowly.

While you do not have to understand but as years of high blood pressure progresses without taking any medication, R wave in the EKG becoming taller and S wave in the EKG becoming deeper, there is what we call electrical axis of the heart which we can calculate from the EKG and it also starts changing.



Chap19Fig2

EKG can tell us tons of things, but these are the most important things we want to know.

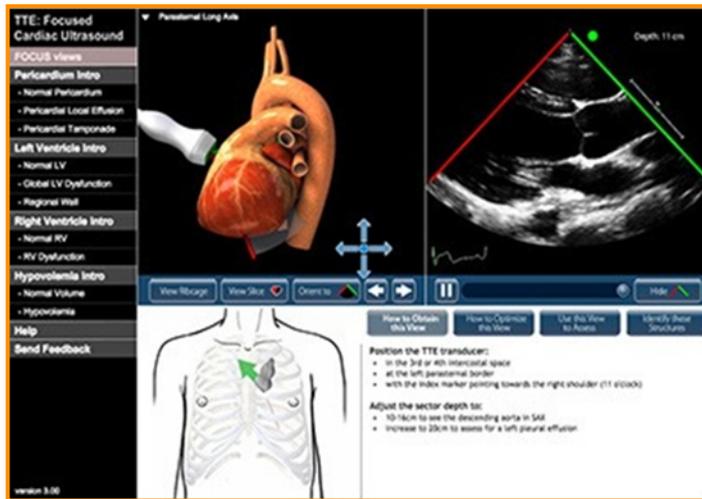
Once again, the most important thing we want to know is any change from our normal year-to-year EKG.

Chapter 20

2-D Echocardiogram/Ultrasound of the heart

What is the most important thing you want to know from the echocardiogram?

One thing which is very obvious, we all want to know what our Ejection Fraction is. Ejection means- what you kick out or what you reject.

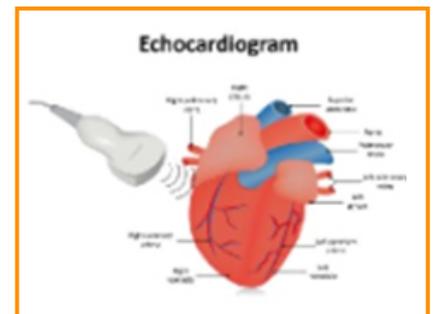


Chap20Fig1

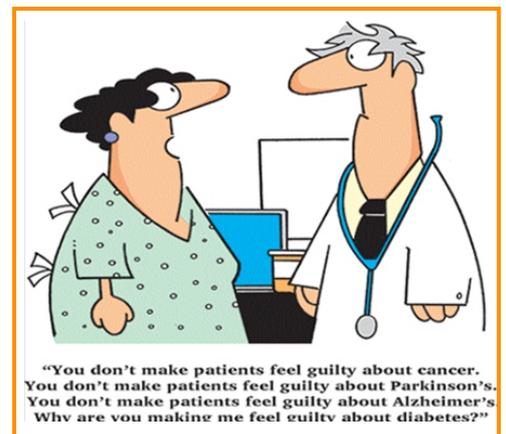
When heart pumps, it kicks out or pumps out the blood to rest of the body and it does not completely empty but it kicks out about 70% of the blood which goes through rest of the body. Blood pressure rises to 120 and then as heart relaxes, blood pressure falls down to 80 mmHg and heart starts filling up with the blood. This cycle continues. Ejection fraction is very important for all of us. If our ejection fraction is 30%, then we cannot walk from one room to another without feeling very short of breath and our life expectancy is few years only, unless we do some major intervention. Such a person will actually meet the criteria for heart transplant also.

We want to know the function of the valves. Heart has four valves which make sure that the blood always goes in one direction. It does not leak back. It closes and opens smoothly. An ultrasound can tell us right away, especially, the color ultrasound can even tell us any leakage or any turbulence in the blood which should not happen in a normal healthy heart.

Third important thing what is we want to look for and it should not be there, is a thickening of the heart muscle walls. The muscles becoming thicker and stronger is good for our hands and feet or upper extremity and lower extremity, but it is not good for our heart, because heart has a very limited blood supply and if anytime we increase the thickness of our muscles as we do by exercising or weightlifting, then blood supply also catches up. But, that is not true for the heart. So, what we are looking for is a normal thickness of the heart muscle and if muscle is thicker than normal then most important reason is usually the high blood pressure.



Chap20Fig2



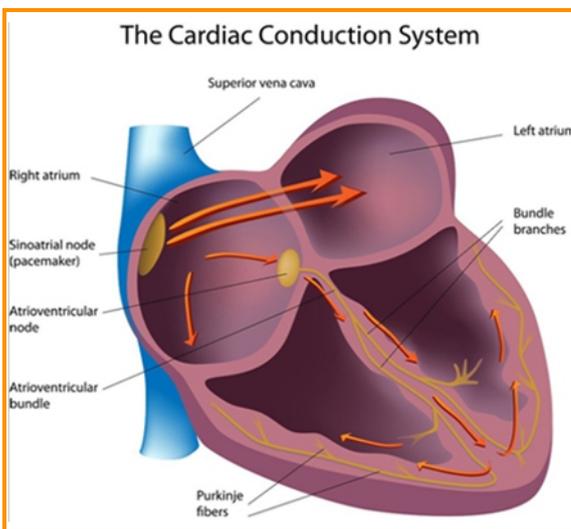
Chap20Fig3

Chapter 21

CT Angiogram

What is the most important information you want from CT angiogram?

We already have huge information from EKG and ultrasound which can be very comforting, but fact is none of these tests tells us the blood supply of the heart. They tell us about the electrical rhythms. They tell us about the mechanical function of the heart



Chap21Fig1

Heart has only three tubes, actually two tubes. One right heart artery is called the Right Coronary Artery and left heart artery is called the Left Coronary Artery. Left Coronary Artery divides into three, so traditionally we say heart has three arteries which supply all the blood to the heart and any cut off from any of the branch will lead to heart attack.

Again, anything can happen in the movies but in real life, things happen very slowly. Heart arteries start getting blocked with some deposition of cholesterol plaques in the wall of the arteries or the tubes and slowly, slowly they become narrower and when the blockage is more than 70%, we start having chest pain. Anytime our heart gets stressed out. Suppose, we walk or run 2 miles every

day. So, our heart becomes used to pf that. But, suppose we chose to run 5 miles and we have a blockage of 70%, then we definitely start having chest pain after we have run for 2 miles because then heart cannot compensate any extra effort and it will not be able to meet the increased demands of heart muscle and we start having chest pain or a heart attack.

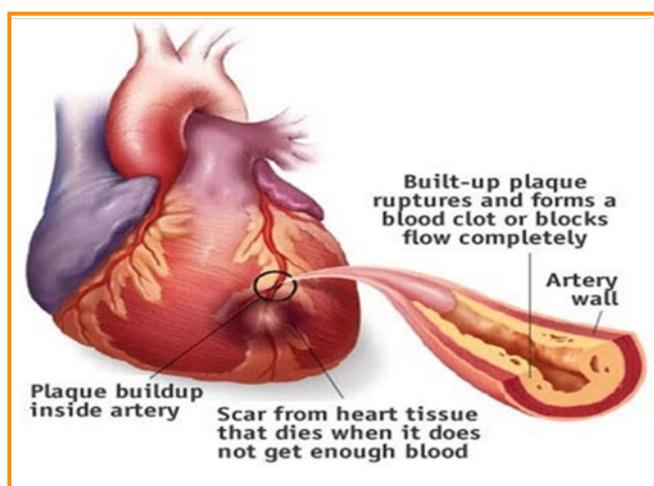
Most important thing we really want to know is the percentage of blockage. As blockage happens over years from 20 to 30% will take probably three to five years, from 30 to 50% will take probably another three to five years, and then blockage proceeding to 70% will take about 10 to 15 years. Most of us have a very similar lifestyle and same kind of diet, so we can draw a straight line based on what is happening every few years and unless we change, we make some kind of intervention whether by diet, by exercise, by mediations, or by medical technology obviously in consultation with a cardiologist, heart doctor. Then, we can slow down the blockage or even reverse it and most important medication we use for that is the cholesterol lowering medications.

Chapter 22

Here the bottom-line is- if EKG, 2-D Echocardiogram and CT Angiogram are normal, then we cannot have a heart attack in the next five years, we cannot!

We strongly believe in god and we should, but at the same time god has also given the knowledge of science and the whole universe runs on physics, chemistry, and mathematical and biological principles.

Earth has been going around sun following all rules of science and physics and math – religiously over millions of years.



Chap22Fig1

And, it will keep going that for millions of years per all scientist in the world.

Has normal body temperature ever changed for human beings? (It's always 98.6 degrees F).

No, it has not. And we all know it. Body follows every rule of chemistry, physics and science to maintain that temperature.

If it's too hot Or, too cold We die (everybody has seen movie the Titanic) The fact I am trying to impress upon you will be that for the next five years, there will be no risk of sudden death from heart attack.

Three-Year Outcomes and Cost Analysis in Patients Receiving 64-Slice Computed Tomographic Coronary Angiography for Chest Pain

[sciencedirect.com](https://www.sciencedirect.com) Updated Feb 23rd, 2019

With follow-up of 36 months, 376 of those patients (100%) with minimal or no disease by CTCA were free of events or intervention. In conclusion, in a real-world, clinical setting, the negative predictive value of low-risk CTCA is very high and exceptionally helpful in predicting freedom from events for up to 3 years. By avoiding further invasive treatments, there is a significant potential cost savings in patients who are sent for noninvasive coronary angiography rather than invasive angiography.

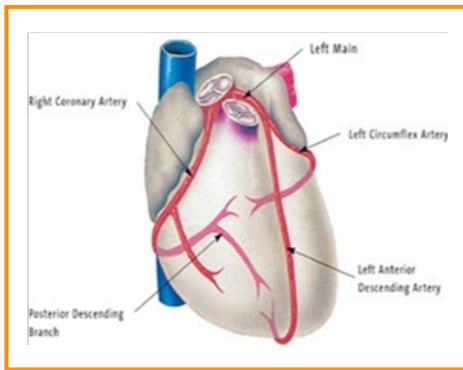
Chap22Fig2

Chapter 23

There was a study done which i have simplified in simple English

In this study Doctors followed about 400 patients for three years and they did the CT angiogram in these patients. They found that their coronary arteries were fully open.

In these three years, none of them had a heart attack or any invasive procedures like cardiac catheterization or stent placement, etc.



Chap23Fig1

We use a medical term called negative predictive value. It means these 400 patients as doctors followed these patients for three years- with very little or no disease coronary angiogram, we can say that they are not going to have any heart attack for two to three years

Since CT angiogram is a non-invasive procedure (cost is about 10,000 rupees), it will save us a huge cost by preventing any invasive angiography and stenting (more than 2 lakhs rupees or even more in an emergency) which we may be referred to.

Chapter 24

Your life - Your heart health - You decide

If we are highly educated middle-class family people and we have enough money, then we can protect our health.

I do write the value of these tests as a M.D., as a doctor and you decide whether to go ahead. it is your decision since it is your life.



Chap24Fig1

While I am not saying consulting a doctor is not important, but those days are gone when you blindly follow your doctors, you have to protect your own interests whether they are social, financial, or medical.

Reality is, all the doctors and the heart doctors are used to managing heart issues when blockage is 70% or more because that is when we start having chest pain and probably all of you are aware of the heart stress test where they make us run on a treadmill and keep taking our ECG, but that test is only positive if our blockage is more than 70%. Till that blockage, heart compensates, and we do not see any ECG changes and that stress test comes as normal.

Do you really want to wait till you get 70% blockage?

Your life - your heart health - you decide.