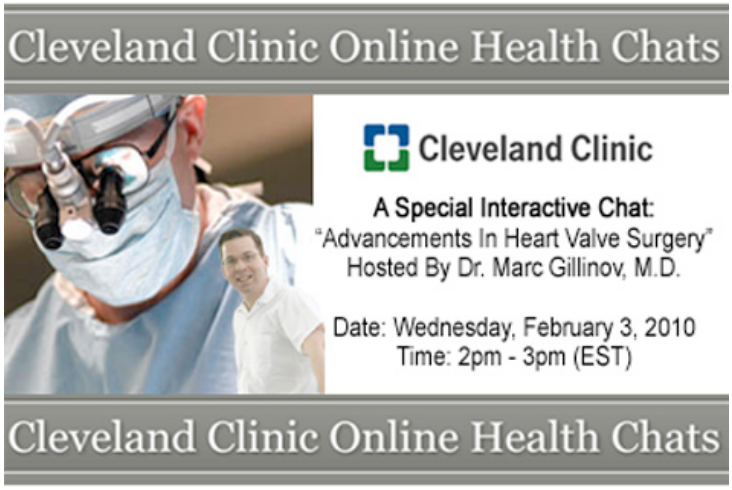
Official Online Health Chat Transcript

"Advancements In Heart Valve Surgery"

Dr. Marc Gillinov's Exclusive Online Chat
With The Patients & Caregivers Of www.Heart-Valve-Surgery.com



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THE PATIENT'S GUIDE TO
Heart Valve Surgery
A SPECIAL BOOK FOR PATIENTS & CAREGIVERS

www.HeartValveBook.com

I. Introduction:

On February 3, 2010, Adam Pick, the author of *The Patient's Guide To Heart Valve Surgery*, invited cardiac surgeon Dr. Marc Gillinov, MD - one of the leading heart valve surgeons at the Cleveland Clinic - to participate in an exclusive, Internet chat with the patient and caregiver community located at www.HeartValveBlog.com.

Below you will find the official written transcript of this unique online health chat among Dr. Gillinov and the patients who attended the live Internet chat.

II. About Dr. Marc Gillinov

Marc Gillinov, MD, is a staff cardiac surgeon at the Sydell and Arnold Miller Family Heart & Vascular Institute at Cleveland Clinic and he is board-certified by the American Board of Surgery and the American Board of Thoracic Surgery.

Doctor Gillinov holds the Judith Dion Pyle Chair in Heart Valve Research at Cleveland Clinic.

Dr. Gillinov has special expertise in minimally invasive mitral valve, aortic valve, and tricuspid valve surgery; robotic valve surgery; mitral valve repair; aortic valve replacement; surgical treatment and minimally invasive surgery for atrial fibrillation; off-pump coronary artery bypass surgery and high-risk mitral valve surgery. In addition, he is Surgical Director of the Center for Atrial Fibrillation at Cleveland Clinic.

A Cleveland native and graduate of Hawken School, Dr. Gillinov first worked at Cleveland Clinic in 1978. Sparked by the successful heart surgery of a close family member at Cleveland Clinic, Dr. Gillinov spent his summers during high school as a researcher and assistant in the cardiac surgery operating suite.

After graduating *summa cum laude* from Yale University, Dr. Gillinov entered Johns Hopkins University School of Medicine, where he ranked first in his class. Dr. Gillinov received his clinical and advanced training in general surgery and cardiac and thoracic surgery at The Johns Hopkins Hospital. After completing his education and training, he returned to Cleveland Clinic and joined the cardiac surgery staff in 1997.

Dr. Gillinov is a recognized expert in mitral valve repair surgery and in the study and treatment of atrial fibrillation. He has been instrumental in the development of new, less invasive treatment approaches for mitral valve disease and atrial fibrillation. He has delivered hundreds of invited lectures at hospitals, academic meetings and seminars in the United States and abroad.

To arrange an appointment with Dr. Gillinov please call (216) 445-8841.

III. Chat Transcript:

Heart valve surgery is a procedure used to repair or replace diseased heart valves. Over the past few years, there have been great advances in the surgical treatment of diseased heart valves. Surgeons are able to repair and replace valves using traditional, minimally invasive and robotically assisted techniques. In fact, heart valve surgery is the most common minimally invasive procedure. This type of surgery reduces blood loss, trauma, and length of hospital stay. When faced with valve surgery many patients have questions about their valve condition, the surgical procedure and recovery after.

Cleveland_Clinic_Host: Welcome to our Online Health Chat with Dr. Gillinov. Today's webchat is a very special webchat for Adam Pick's community and we would like to welcome this group to the chat. We would also like to thank Dr. Gillinov for taking the time out to answer our questions.

Cleveland_Clinic_Host: The questions that we will be answering today were submitted through Adam's blog as well as our website. Please be aware, that due to the great interest in this chat we may not be able to get to every question, but we will try our best. Let's begin with our first question!

Speaker_-_Dr__Gillinov: Thank you for the opportunity to present today - what a great response from Adam's community! Let's get started.

Judy: My 58 yr old husband will be having aortic valve replacement soon, and the results of the angiogram last week revealed his arteries are clear of plaque (good news). We were told because of that, they might do “minimally invasive” surgery whereby the sternum cut won’t be as long. He’ll need a CT scan in a few weeks prior to meeting with the surgeon. My husband’s biggest question is how long (typically) the sternum takes to heal? He’s a fitness buff and I’m trying to convince him the “patient needs to be patient”…. any thoughts?

Speaker_-_Dr__Gillinov: The sternum will take about 6 weeks to heal. He should start aerobic activities right away. Light weights at 6 weeks. Heavier weights at 3 months.

D_Henry: I had AVR in 2000 when I was 55 years old with a Carpentier Edwards Bovine tissue valve and will need a second surgery this year at age 65 and I only want to have to undergo this surgery one more time and I am thinking about the ON-X mechanical valve, which I have read requires less coumadin and some patients are taking plavix only. I am on high blood pressure medication and also taking Questran for nutrient absorption due to a GI Bleed surgery where I had my ileum removed, but am in good health otherwise. Several Questions (9).

Speaker_-_Dr__Gillinov: I have answered each of your questions below:

1. Would you recommend the ON-X or the St Jude's or stay with the tissue valve? Any of the mechanical valves is good. If you have had no more GI bleeding, a mechanical valve is fine.
2. Have there been any advances in the preservation of the tissue valves where they would last 20 years? Some do last 20 years, but I would count on only 10-15 years.
3. And is the medical field working on new blood thinners, which would require not taking them daily and having your blood tested daily? Yes, but they are not available in the US.
4. If I have the surgery performed in Cleveland how long would I have to stay before I could travel back to Richmond, Va? Usually about a total of one week in town
5. And how often is a homograft or cadaver valve use to replace the aorta and how difficult would a re-do- operation be with a homograft? We only use these procedures when indicated in special situations. Reoperations after these procedures are challenging.
6. Are there any surgeons at the Cleveland Clinic , who perform the Ross Procedure? Yes
7. How many years would a 65 year old male get from the Ross Procedure? Same as a tissue valve. There is no advantage to a Ross for you.
8. If a cadaver is used to replace the pulmonary valve , then why can't the aorta be replaced by a cadaver; therefore the patient would not have to undergo a double valve transplant? And if the Ross Procedure fails how difficult would another surgery be? That can be done—it is called a homograft. It is complicated surgery and is not warranted for you.
9. Can you perform minimally invasive AVR surgery on a re-do operation or is there too much scar tissue involved, so you would have to split the sternum requiring more incisions? Usually we do a standard sternal split because of the scar tissue.

cableguy: I was diagnosed with bicuspid aortic valve disease with dilation of the aortic root, 42mm. When it becomes time for the operation can both problems be corrected with a less invasive procedure? Also my cardiologist said that the 42mm dilation is not seen as being a real problem until it reaches about 52mm. Do you agree with this? Thank You

Speaker_-_Dr__Gillinov: I agree with the measurements. If and when you do need surgery - both issues can be managed with a minimally invasive approach.

Michele: I'd love to know the latest thoughts on the Ross Procedure. I know it worked great for you, Adam, but lately I've heard it's fallen out of favor. I have severe aortic insufficiency, a possible bicuspid valve but no aneurysm or stenosis. I'd be interested in considering the Ross Procedure (I'm 42) but wouldn't do it if the risk of a re-operation is high (for me, 20% is high).

Speaker_-_Dr__Gillinov: The Ross is a great operation but has fallen out of favor. It is now used primarily in children as the valve can grow with the child.

Cecilia_B: What do think of repairing a faulty aortic valve. My surgeon said that he advises against it because the repair job just doesn't last. I live in Alaska and we don't have very many heart surgeons in Alaska, only about seven.

Speaker_-_Dr__Gillinov: Certain types of aortic valves—those that leak and have no calcium—can be repaired in some people. This requires a surgeon with a great deal of experience and judgment.

John_A: 1. Do you have any dietary recommendations to slow the progression of stenosis for folks who have high HDL and low LDL/triglycerides ie Vitiman D? 2. Do you see advances coming in the near term for removing calcium from the flaps arthroscopically with long term success?

Speaker_-_Dr__Gillinov: I am sorry - no to both questions. Diet has not proven effective to decrease stenosis.

Vicki: I'll be 1-yr post of in about 10 days and interested in knowing what could cause my other valves to leak when they weren't before the surgery as well as the long-term outlook of my repaired aortic valve (since it's leaking again).

Speaker_-_Dr__Gillinov: The most common cause of a new or recurrent leak in a valve is progression of the native valve problem. This is often unpredictable. It is uncommon. If you do require a reoperation, your aortic valve will probably be replaced.

Lynn_W: We just found out last year my now 23 year old son has a bicuspid valve in stead of a tricuspid. Last year it was not leaking and this year it is but i guess not enough to have valve replacement right now. His doctor did tell him he would have to have open heart surgery, and valve replacement. They set him up for a appointment in one year. Should they wait that long and wouldn't it do more damage to wait than to do it now?

Speaker_-_Dr__Gillinov: He should only have surgery if the leak becomes severe. This sort of surgery is never an emergency. I would wait until the leak becomes severe.

Julie_W: I'm 32, have two children under 3 years old. My mother was just diagnosed with heart valve disease and had an aortic valve replacement 10 weeks ago. I was diagnosed with the same birth defect at that time as well. I'm interested in getting more information about what to watch for, what advances are being made in this type of surgery, and what the future holds for someone after having a successful heart valve replacement.

Speaker_-_Dr__Gillinov: You probably have a bicuspid aortic valve. I would get an echocardiogram every 2 years for now. It takes decades for the valve to deteriorate in most cases. So, on a day to day basis, don't worry about it.

Sam_S: 1)Is there any type of arrhythmia that can be a result of a tissue AVR and if so how long does it last and how is it treated? 2) What medications are typically prescribed after a minimally invasive (mini-sternotomy) tissue AVR and for how long are they usually taken? 3) Are there any precautions or restrictions concerning physical activity placed on a tissue AVR recipient (ie. running, high altitude skiing & climbing) after recovery?

Speaker_-_Dr__Gillinov: Here are the answers to your three questions:

1. Is there any type of arrhythmia that can be a result of a tissue AVR and if so how long does it last and how is it treated? As a result of any kind of heart surgery, some patients get atrial fibrillation. This usually passes with time—a month or two.
2. What medications are typically prescribed after a minimally invasive (mini-sternotomy) tissue AVR and for how long are they usually taken? We usually just prescribe life-long aspirin.
3. Are there any precautions or restrictions concerning physical activity placed on a tissue AVR recipient (ie. running, high altitude skiing & climbing) after recovery? No restrictions.

Judy: I am 66, female, 5ft 2 high, with an anomalous origin of my circumflex artery running off the RCA and exactly adjacent to my aortic valve, due for aortic valve replacement 21mm (maybe 23mm). Reoperation is tricky with me so am reluctantly considering a mechanical valve. What is the progress of the Austin study with the OnX valve requiring little, if any warfarin? Is there a long lasting stented tissue valve? I am not a candidate for human donor valve because of calcification in my sinotubular junction.

Speaker_-_Dr__Gillinov: The coronary artery situation should not complicate your operation. In your case, a tissue valve would have a 50% chance of lasting your entire life. For the foreseeable future, mechanical valves will require warfarin. The OnX valve is a good valve, but it is too early to say whether it can be used without warfarin.

Inger: I'm a 60 yr old female, recently diagnosed with a bicuspid aortic valve with medium to severe stenosis. I'm in Sweden and the minimally invasive procedure is NOT used here for patients not in a special risk group. Plan is for me to get a mechanical valve and I will not meet the surgeon till the day before the operation when I'm already in the hospital. I'm not comfortable with not knowing anything about the surgeon or the proper procedure for me. I'm also worried about being on blood thinning medication the rest of my life. Which procedure and type valve would you recommend?

Speaker_-_Dr__Gillinov: In general - we try to help the patient choose the valve that is best for you. I tend to favor tissue valves but it depends on the patient and lifestyle of the patient more than anything else. We can do aortic valve surgery with a variety of minimally invasive techniques.

Rob_S: I am a 44 year old white male, in decent shape (not working out but active), non-smoker. I have a bicuspid aortic valve that is calcified. Recent echo reports: "The aortic

valve is heavily calcified and bicuspid with a raphe at 9:00 and no demonstrated valve opening. Peak velocity across aortic valve is 4 m/s. Mean gradient across aortic valve is 39mmHg. Aortic Valve area is .9-.95 cm2. Aortic Valve Area Index is .4cm2/m2. There is trace aortic regurgitation" I am rather asymptomatic (occasionally get dizzy) and my current cardiologist suggest surgery within the next 5 years. Like to get your opinion. Also, just been diagnosed with Classical Hodgkins Lymphoma, nodular sclerosis type. Am at least at Stage 2 but have yet met with Oncologist. I understand some of the chemo therapies can damage the heart muscle (believe it is any therapy that contains Adriamycin). What should I be concerned about regarding treatment of the Hodgkins? What questions should I ask the Oncologist? Would it make sense to have the valve surgery before Hodgkins treatment so that the heart is more healthy? Also, can the Cleveland Clinic treat/manage both my Hodgkins and Heart conditions together?

Speaker_-_Dr__Gillinov: These are two separate issues - your aortic valve will probably require surgery in the next year or two . I would manage your Hodgkins first. If you require radiation therapy, I would ask the doctor if the radiation field will include the heart. It is best if the radiation does not include the heart. We could manage both conditions at Cleveland Clinic if you wish.

Rhena: Several Questions to answer about aortic valve surgery

Speaker_-_Dr__Gillinov: Here are the answers to all your questions:

1. With an aortic valve area of 1.0 cm2 is there any rule of thumb on when replacement may be required? Usually within 3-5 years.
2. When making a valve choice (tissue vs. mechanical) is it reasonable to assume that a re-op say 10 to 15 years from now could be done percutaneously (i.e. via transcather). Is that something one should factor into a valve choice? I'd much rather go tissue, but the possibility of multiple OHS gives me pause. It is likely that this will be possible.
3. What information if any can you impart about the relatively new ATS 3F Equine Valve currently in clinical studies. Where could one go to find out more info on this valve (other than the manufacturer's web site) If one does not have BAV (as yet unknown in my case) would this be a viable option you think? I would choose a standard bioprosthetic valve with a stent as this will provide the best landing zone for a future percutaneous valve.
4. If one can assume a future reop could be done percutaneously, does that limit my valve choices now? Is there one particular type that would lend itself better to future replacement via transcatheter? Stented tissue valve.

Brian_P: Dr. Gillinov - Hello I am an American expat living in Norway. I am 56 years old. I exercise regularly. I have a bicuspid aortic valve that has become calcified. I have a pressure gradient of 60, however I have largely remained symptom free. On the Bruce Protocol Treadmill Stress test I go for 16 min with a heart rate of 145 bpm without symptoms. I may have been experiencing some symptoms but I am not sure. My cardiologist in Houston tells me that I could have the surgery soon. Here in Norway I would have to travel to Oslo or Bergen as Stavanger does not have the expertise. I don't

feel comfortable with that, therefore, I am considering Cleveland Clinic. My question – How do I know it is the right time? How can I be sure? I am considering a tissue valve to avoid blood thinners. I also need to know how to arrange this.

Speaker_-_Dr__Gillinov: I would have the surgery some time in the next year. You are most likely a candidate for a minimally invasive approach. Would be happy to review your records. You can contact us at 216-444-3500 for our surgery department - or you can go through Global Patient Sevices - 2216-444-8184

sshah11: Hello Dr Gillinov, I am a 31 year old male born with a bicuspid aortic valve. I had a valvotomy in 1992 (when I was 14 y.o.), A valvuloplasty aortic repair in 2002 (24 y.o.) and another most recent aortic valve repair to correct prolapse this past June 2009. My most recent repair looks to now be failing just 6 months post-op with echo showing at least moderate leakage with left ventricle dilation (LVED was 5.2mm one month post op and now it is 6.5mm at 6 month post-op). Cardiologists are now recommending a valve replacement. At my age (31), would you prefer mechanical or tissue? This would be my 4th OHS (first valve replacement). BTW, my echo shows Aortic root diameter to be 3.6cm. I want to be able to live into my 70s/80s but am totally confused as to what I should do, especially with the possible new advancements in tissue engineering and percutaneous valve replacement. Please advise!!! Thanks so much.

Speaker_-_Dr__Gillinov: I would recommend a mechanical valve at this time. Of course, if you really do not want to be on a blood thinner, you could have a tissue valve. But this means some sort of procedure down the road.

Paul_G: I had quadruple heart by pass surgery 22 years ago. I now need aortic valve replacement. During my bypass surgery the Right IMA was grafted to the Left Anterior Descending. Assuming a cardio thoracic surgeon will need to cut through the sternum isn't there a likelihood that the Right IMA will be damaged?

Speaker_-_Dr__Gillinov: It is a risk - you require a team with special expertise in cardiac re-operations.

John_B: my mom is 69, she was told she needed aortic valve replacement. Her arteries are clean. Other than this , she is in good health condition. My grandma lived into her 90s. The only thing is that my mom bruises very easily. What would you consider to be a good valve option for her. When will we see the percutaneous method be used in the U.S. instead of conventional surgery. thank you

Speaker_-_Dr__Gillinov: I would recommend a tissue valve which will enable her to avoid warfarin. Percutaneous valves will be available when the FDA approves them. We do not know when this will occur. We also do not know how long percutaneous valves will last.

shaneme123: For an aortic valve replacement surgery, is extra blood needed (heart/lung machine?) and if so, how much? Also, can you donate ahead of time?

Speaker_-_Dr__Gillinov: Most people do not need blood transfusions. You can donate ahead of time. The heart lung machine is used.

WKThune: 55 yr old male, I have a date with you on St. Patrick?s Day. What is the recovery time I should expect for aortic valve replacement using minimal invasive approach and no major complications? How soon can I start playing tennis again and resume normal activities? A doctor here in Tulsa uses the ?Talon? Titanium plate (I think he invented it) approach to mending sternum back together, less pain and faster healing. Are you familiar with this, is it really that innovated and do you all use this? Thank you-captain bill, Tulsa

Speaker_-_Dr__Gillinov: You will probably be in the hospital 4 or 5 days. You will be active within 2 weeks and fully active including tennis, in 6 - 8 weeks. We do not use that sternal closure technique. The sternum generally heals well. We will see you in March.

Michel: Hello Dr. Gillinov I am 44 years old (male) french living in France. I have an aortic stenosis and need an AVR in the next few month (mean gradient 45 mm Hg, Peak velocity across aortic valve is 4.3 m/s, aortic valve area index is .5cm2/m2). I am full asymptomatic. I do not smoke , no alcohol and do sports (running, soccer without problem), well active. I travel a lot for my job. My cardiologist wants absolutely a mechanical valve, because he’s scared for the 2nd surgery. I would prefer a valve repair or a tissue valve to conserve all my activities. What do you think about that. Am I right to impose a biological valve ? Is it convenient to undergo a surgery while asymptomatic.

Speaker_-_Dr__Gillinov: Surgery soon is reasonable. It is not always wise to wait for symptoms to appear before having valve surgery. Sometimes onset of symptoms coincides with damage to the heart. I would choose the valve type that best fits your life. It is reasonable to place tissue valves in young people.

Gpearlstone: I am a 48 year old male with BAV. I have no real issues with stenosis to date. I do have an issue with an enlarged aorta. The enlargement is at the root (4.4 cm). I would like to know your thoughts on aerobic exercise for someone in my condition. I currently run about 20 miles per week. I have shifted to running inside on a treadmill and occasionally use of a elliptical trainer. I guess I did this for peace of mind in case something happens I would have people around to call for help. Should I be monitoring my blood pressure while exercising? I don’t have any blood pressure issues at this time. Typically averaging, at rest somewhere around 125/85. I am also scheduled for my 6 month Eco follow up the first of March. Thanks.

Speaker_-_Dr__Gillinov: You can exercise aerobically. You should be on a beta blocker. (answered post chat)

Roddk: I am 55 years old - I need an AVR - what type of valve would you recommend?

Speaker_-_Dr__Gillinov: Up to you. I favor a tissue valve. (answered post chat)

woodstock2b: One year post AVR I experienced serious pain near my heart - was checked out by two cardiologists - test etc, no explanation - could it be the wire?

Speaker_-_Dr__Gillinov: That is possible. Would get a CT scan. (answered post chat)

Ahmc: My 23-year old son has bicuspid aortic valve that has been monitored yearly by echocardiogram since he was 14. The regurgitation is now severe, no stenosis, left ventricle measures 5.7 - 6.2 depending on which cardiologist is reading the echo. What determines if he is a candidate for AV repair and if it can be done with minimally invasive technique? Would that most likely be a mini-sternotomy?

Speaker_-_Dr__Gillinov: He needs surgery. The possibility of repair depends upon the findings at surgery and the expertise of the surgeon. You need a surgeon who does this sort of operation frequently. (answered post chat)
Type of Valve – Mechanical, Biological, On-X – and valve repair

Ferrari: very interested in learning the difference between valve replacement and valve repair…..

Speaker_-_Dr__Gillinov: For the mitral valve, repair is usually possible and is preferred. For the aortic valve, replacement is usually the best option

Frank_R: My son Jesse is 30 years old. He was born with a bicuspid aortic valve. He has had a surgery to remove an aortic coarctation (Dacron section inserted). He has had two surgeries (at 5 yrs. & 14 yrs old) to open up his valve to help it work better. In October 2009 he had the defective aortic valve replaced with a porcine valve. After the surgery a hole suddenly appeared that is allowing blood from one chamber of his hear into another. This hole is very close to the valve in the inside. It is only a few months from his surgery and now they need to go in again and take out the valve and fix the hole and then put in the valve again. They want to put in a mechanical valve now. He does not want a mechanical valve. I would really love to talk to a top surgeon about his case.

Speaker_-_Dr__Gillinov: The rationale for a mechanical valve is to try to avoid future surgery. However, the choice of valve is your son's. If he wants a tissue valve, I think he should receive a tissue valve. If he gets a tissue valve now, it is possible that future "operations" will be able to be performed without surgery using catheter based valves.

Kemal: I had a mechanical mitral valve replacement operation in March, 2009. I have 2 questions:

Speaker_-_Dr__Gillinov: Here are the answers to your three questions:

1. I had a minor Ischemic stroke 4 months after the operation. Doctors believe that the cause was a small blood clot caused by my mechanical mitral valve. What can I do to prevent further strokes in addition to keeping my PT/INR 3.0 and above? I would get an

echocardiogram to make sure that the valve has no clots on it. Then, stick with the coumadin.

2. Will I always have a higher chance to get a stroke since I have a mechanical valve? Yes, but it is not too high.

3. I sometimes have higher than usual heart rate especially during exercise. How long would it take after a mechanical valve replace to get rid of those occasional heart rate variations and, more importantly, atrial fibrillation incidents which may cause blood clots and potentially stroke? The afib usually goes away by 3 months postop. I would use a beta blocker if you are still having it.

Ceclia: What kind of valve would you recommend for me given these circumstances:? A mechanical or biological one. If mechanical, what type? I am a 54 year old female with aortic insufficiency and regurgitation. My surgeon says that repairs don't last long and recommends that I get a mechanical one. I have lupus for 10 years and am doing ok now but was quickly losing function of my kidneys so I was on Cytoxin for a while. Luckily the Cytoxin reversed the damage to my kidneys. I have a full time job and am pretty active, gardening, fishing, walking, etc.Thank you for your time.

Speaker_-_Dr__Gillinov: The type of valve is, of course, up to you. I tend to favor tissue valves to avoid warfarin.

sshah11: What do you think of the ATS 3f valve for a 32 year old who has undergone 3 previous valve repairs and is finally facing a valve replacement procedure? There is a current FDA approved study for this valve in the younger population. What are your thoughts?

Speaker_-_Dr__Gillinov: I think that would be a mistake. If you desire a tissue valve - you should chose one with proven durability.

judy_a: What are the latest developments regarding mechanical heart valves which require little if any warfarin. What are the latest developments regarding coating tissue heart valves so that they are less likely to deteriorate?

Speaker_-_Dr__Gillinov: There is currently no mechanical valve that does not require warfarin. Studies are ongoing to determine whether the On-X valve can be managed without warfarin. Current tissue valves have excellent durability but given enough time - they do wear out.

Dorothy_D: On what basis is a determination made to use a bovine vs. a porcine valve?

Speaker_-_Dr__Gillinov: They are both good. It tends to depend on surgeon preference.

August: As a youthful 74 year old I have received conflicting opinions from two prominent cardiothoracic surgeons in North Carolina concerning mitral and aortic valve replacement selection. One states that tissue valves in the aortic position can last up to 18 years ,but mitral only up to 8 years. He also states that patients with rheumatic valve

disease will in many cases require coumadin due to atrial fib. He recommends mechanical to avoid reoperation at age 84. The second surgeon recommends tissue valves and states that there is no difference in valve life in either position. He is very opposed to coumadin usage in the elderly. Is there any data to support either surgeon's position?

Speaker_-_Dr__Gillinov: The surgeon recommending tissue valves is stating the majority position. Tissue valves are likely to last your entire life.

Don_H: I will be facing a second AVR soon and I have questions regarding the ON-X valve. And what about a homograft in place of the aorta instead of the Ross Procedure?

Speaker_-_Dr__Gillinov: The On-X valve is a good valve. If you wish to avoid warfarin, I would choose a tissue valve. I would only choose a homograft or Ross procedure if there were compelling reasons that you could not have a standard tissue valve. The homograft and Ross procedure are more complex operations with higher risk. Those operations require special expertise on the part of the surgeon.

P_Smith: In particular I would like to discuss the pros and cons of mechanical vs porcine or bovine and if the ON-X valve is likely to become a coumadin-free alternative. I'm scheduled for an angiogram for January 22nd for possible aortic valve and aortic root graft within a few months (maybe May). I used to scrub as a tech in open heart during my surgical tech training. I am very active outdoors and if I take coumadin, I'm afraid that I would bleed out within a few months of surgery (I beat myself up terribly :-)).

Speaker_-_Dr__Gillinov: I would recommend a tissue valve as that seems to fit with your lifestyle. If you get a tissue valve and it wears out down the road, there is a good chance that it will be able to be replaced with a percutaneous/catheter-based valve.

Phyllis_P: Which type of valve he recommends as far as longevity for the mitral valve replacement: the pig, or the cow??? And how long does he feel the pig valve would last???

Speaker_-_Dr__Gillinov: They are both good and I am not sure that there is an important difference. They almost always last at least 10 years. The older you are, the longer they last. If you have mitral valve prolapse, your valve should be repaired rather than replaced.

Anne-Marie: My brother is 43 years old and is due in the next few months to have an aortic valve replacement due to severe stenosis. He intends to give up smoking but still likes to have roughly 4 pints of lager a night. Would you recommend an artificial or tissue valve replacement in consideration of his lifestyle. He has discussed this with his surgeon who has intimated that the choice is his. He would appreciate your opinion concerning this.

Speaker_-_Dr__Gillinov: The choice is his. But, if he is at risk for injury that would cause bleeding, I recommend a tissue (bioprosthetic) valve.

sshah11: The ON-X mechanical valve is receiving a lot of attention due to its potential for decreased thromboembolism and possible lower anticoagulation range. They claim that it is due to the fact that they use pure carbon vs silicone alloyed carbon used in other newer mechanical valves such at ATS. Do you think there is a difference between theses two valves or is it just good marketing? Do you have a preference?

Speaker_-_Dr__Gillinov: I think that they are both good valves. The key question will be - can you avoid warfarin? The answer is currently unknown.

Ginny_S: My son, Greg (33), was diagnosed with aortic stenosis and will eventually need a valve replacement. He is trying to make a decision whether to go with the bio (pig) valve or mechanical valve and we are wondering whether it would not be better to go with the pig valve at this time to avoid taking medications and, say 10 or so years down the road, perhaps the options for this surgery would be advanced a great deal, ie., stem cell or something of that nature may be available. What do you advise?

Speaker_-_Dr__Gillinov: I favor tissue valves—cow or pig. Future replacements may not require surgery.

stephen_C: Dr. Gillinov, Please give your thoughts about the choice of mechanical versus biologic valve for patient over 50. Do you ever use the mini-thoracotomy approach for aortic valve replacement? When you performed my aortic valve replacement, you said the Carpentier-Edwards Magna Ease 23 mm valve had an effective orifice of 25 mm. Could you explain?

Speaker_-_Dr__Gillinov: The aortic valve is best approached from the front. A 23 mm Magna Ease valve is hemodynamically efficient and is designed to have the superior hemodynamics of a 25 mm valve. So, it is good for blood flow.
Mitral Valve Surgery

Sunlin: My dad needs a mitral valve replacement due to regurgitation. He is 61 years old, but he has emphysema and lung bulla on both sides. Would it be a great risk to take since his lung is not in a good condition? (maybe cant take off the apparatus after the surgery or even worse?) any advice?

Speaker_-_Dr__Gillinov: See a pulmonary doctor to determine his risk. He may be a candidate for minimally invasive surgery, which would stress him less. (answered post chat)

Lois_B: My husband had Mitral Valve repair 12 years ago. Now anticipating Aortic valve replacement for a leaky valve. Maybe you could have some questions ready from readers in advance. I'm sure many of us have similar concerns such as whether to travel for the surgery or stay local? What complications can we expect for a 2nd surgery? Thanks for your blog and books, Adam. They are very helpful!

Speaker_-_Dr__Gillinov: In experienced hands, the risk of not getting through the surgery should be 1% or 2%. Risks of heart attack and stroke are each about 1%. Risk of infection is 1%.

Mollyfrise: I am in the process of being followed for mitral valve regurgitation and have met with a surgeon who did say I should have surgery based on my supine bicycle stress echo. My question is do I move forward with surgery or wait per my cardiologist? New echo shows also now diastolic dysfunction.

Speaker_-_Dr__Gillinov: If you have severe MR and a positive stress test, I would recommend elective surgery. If you decide to wait - make sure that you get an echo every 6 months so that you can avoid developing heart damage.

Tom_L: I have a 13 yr. old who has had two open hearts for mitral issues. As we move from Ped. Docs to adult Docs we would like to hear about some of those issues and also hear what the Docs see coming in the next 5 to 10 yrs. with mitral valve patients.

Speaker_-_Dr__Gillinov: Percutaneous (non-surgical) mitral valves are on the horizon. Stick with a major medical center that has both adult and pediatric cardiology and cardiac surgery.

Mark: I am a 76 yr. old who for about 20 yrs. was diagnosed with MVP and mild to moderate MVR but whose regurgitation was found severe first time in May 2008. I also underwent in Nov. 2009 an unsuccessful attempt to implant a mitraclip (e-Valve) transcatheter device at the end of which the device was withdrawn without problems as not being able to adequately reduce the regurgitation level. I have also scoliosis, but besides my MV problem and a moderately enlarged left atrium nothing else was found wrong with my heart and coronary arteries (clear of plaques). Based on these facts: 1.Could the failed implant of the mitraclip affect in any way the nature of the contemplated MV surgery (repair)? 2.How does the presence of scoliosis impact on the nature of surgery? a. does it entails a (much) higher surgery risk and if so, how much higher? b. could it preclude the repair of MV thus requiring a replacement? c. could it affect the options of using minimally invasive or robotic procedures?

Speaker_-_Dr__Gillinov: You are still a good candidate for mv repair. I would anticipate being able to perform a minimally invasive or robotically assisted approach. The approach chosen would depend on preop testing such as a CT scan.

HeyYou: What is the risk of stroke with mitral valve surgery?

Speaker_-_Dr__Gillinov: In most people it is less than 1 percent.

bkanter: I'm an 84 year old man in generally good health, however I did recently find out about some leakage I have in the Mitral Valve which has been giving me shortness of breath. I was told about the less invasive procedure where they clip the end of the valve and recovery is substantially quicker. I've had my transesophageal echocardiogram and I

would like to know more information about the procedure and how to go about getting it done sooner. Thank you.

Speaker_-_Dr__Gillinov: That is the mitraclip procedure. It is an investigational procedure performed by cardiologists - we do have cardiologists here who perform the procedure and we would be happy to put you in touch with them.

Carla_H: I had minimally invasive surgery to repair my mitral valve February 25, 1998 at the age of 48. After surgery, there was only a trace leak but by 1999 a mild leak was noted and gradually it developed into a severe leak as of December of 2008. On my echo of November 2009, the pulmonary pressure was elevated as well as dilation in my heart chambers. I will be traveling to Cleveland Clinic again in a few weeks for another mitral valve surgery. How many successful re-repairs of the mitral valve have you done? What potential risks are involved? In 1998, I had a mini median sternotomy…can that same incision be used for the re-repair? Will my hospital stay be longer since I have had mitral valve surgery previously? If re-repair is impossible, what kind of valve replacement would you recommend for an active 60 year old with lots of life still to live? With heart-felt thanks!!

Speaker_-_Dr__Gillinov: The probability of re-repair is about 60%. It depends on the quality of the valve tissue that is remaining. In most cases we use a standard incision for the reoperation. The safety profile is excellent.

Lisa: I had mitral valve repair via median sternotomy just over a year ago. I was 35, very active, and asymptomatic with MVP and severe regurgitation, initial diagnosis at age 12. Shortly after the surgery, I was told the repair did not go as well as planned and I still have moderate regurgitation. Is it possible to re-repair? I know both leaflets are myxomatous and only the posterior was modified, and an annuloplasty ring was placed. Do we just watch and wait for worsening heart function and /or symptoms before reoperating?

Speaker_-_Dr__Gillinov: I would not reoperate for moderate regurgitation. Get an echo each year. It may never progress. Moderate regurgitation is not dangerous.

Sumi: I had rheumatic fever as a child that affected my mitral valve and caused stenosis. I had my Percutaneous mitral balloon valvuloplasty done in 1997 in India when i was 18. The valve area was about 1.9 sq.cm and I had trivial mitral regurgitation after the procedure. I felt perfectly healthy after this procedure. But the stenosis recurred in 10 years and I had to undergo another balloon valvuloplasty in 2006. This time I had the procedure done at UCSF,CA. After the second procedure I had moderate mitral regurgitation and my valve area was 1.7 sq cm. During my regular visit to the cardiologist last month, I was told that my regurgitation has worsened and it is now moderate to severe. I have no afib or any symptoms so far. My left atrium is very mildly enlarged. All other chambers are in the normal size and functioning well. The valve area remains the same after 4 years - 1.7 sq cm. I have several questions.

Speaker_-_Dr__Gillinov: Here are the answers to your questions:

1. From your experience, how long does it take on the average for MR symptoms to worsen or do any kind of interventional surgery? Does it take years or just months? Usually years
2. What are the criteria for surgery in asymptomatic patients? If you have severe MR and any change in the left ventricle, or pulmonary hypertension or atrial fibrillation, recommend surgery.
3. Can rheumatic valves be repaired? What is the success rate for this? Unlikely after 2 balloon valvuloplasties.
4. Since all my other valves and the heart function is fine, would it be possible for a patient like me to get mitral valve repair or replacement without open heart surgery (mini thoracotomy/percutaneous valve replacement)? Minithoracotomy—yes. Percutaneous—no.
5. Is mini thoracotomy as effective as sternotomy? what is the success rate of the procedure? Are there any advantages to sternotomy over mini thoracotomy? It is as successful. Same success. Patient selection by an experienced team is the key.
6. Is performing mitral valve surgery on rheumatic patients any different from non-rheumatic patients with MR. Is it more risky and does the prognosis differ? Replacement is more likely as the rheumatic process causes more severe damage to the valve.
7. Is there anything at all that i can do to delay the progress of my mitral regurgitation and thereby avoid or delay surgery? No

Debby: MVP Repair- Timing and Type of Repairs you'd recommend. I am 41 year old, healthy (except for MV), active, female getting echos every 6 months with my cardiologist and have been since I was 36. I have severe regurgitation but no other symptoms. Last summer my pulmonary pressure increased to 40 but in December measured 27 again.

Speaker_-_Dr__Gillinov: Answers to 3 questions:

1. When would you recommend surgery? Some time in the next year.
2. What would you expect to see change and when? I favor early surgery in asymptomatic people as long as the valve is repairable and the risk is low.
3. What are your thoughts and recommendations concerning the more minimally invasive robotic surgery to repair the mitral valve? My interest and priority being the best repair possible (I'm not worried about the scar). I favor minimally invasive procedures after screening to make sure that it is the right choice. We do most of our isolated mitral valve repairs minimally invasively, often using the robotic system.

Carla: I had minimally invasive surgery to repair my mitral valve February 25, 1998 at the age of 48. After surgery, there was only a trace leak but by 1999 a mild leak was noted and gradually it developed into a severe leak as of December of 2008. On my echo of November 2009, the pulmonary pressure was elevated as well as dilation in my heart chambers. I will be traveling to Cleveland Clinic again in a few weeks for another mitral valve surgery.

Speaker_-_Dr__Gillinov: Answers to five questions

1. How many successful re-repairs of the mitral valve have you done? As a group, we have done about 200.
2. What potential risks are involved? Standard risks of heart surgery.
3. In 1998, I had a median sternotomy…can that same incision be used for the re-repair? Yes it can be used.
4. Will my hospital stay be longer since I have had mitral valve surgery previously? Should be 5-7 days.
5. If re-repair is impossible, what kind of valve replacement would you recommend for an active 60 year old with lots of life still to live? I favor tissue valves. But, the choice is up to you.

shaneme123: Why are not all aortic valve surgeries done with minimum cutting/breaking of bones? What is the criteria? What would exclude a patient from having a more non-invasive procedure?

Speaker_-_Dr__Gillinov: Isolated aortic valve operations can be done minimally invasively. If bypass surgery is also necessary, a regular incision is necessary. (answered post chat)

barryg I am 70 years of age, a triple bypass in 1005, run a treadmill 5 days a week for 20 minutes at 3.6 mph, diagnosed with Aortic Stenosis at 0.7 valve opening, have no symptoms or chest pains. Am I a candidate for minimally invasive surgery and is that done at the Cleveland Clinic?

Speaker_-_Dr__Gillinov: You need aortic valve replacement. Minimally invasive surgery is probably not an option. (answered post chat)

Cecilia: I need an aortic valve due to stenosis and regurgitation. I am 54 years old , female, and have had lupus for the last 13 years. Is there any special consideration that should be taken in consideration regarding the lupus? Is there a higher chance of rejection of one valve over the other kind due to the antibodies? My kidneys were rapidly losing function so I was on Cytoxin along with the usual steroids.

Speaker_-_Dr__Gillinov: Higher risk of infection, but still low risk. I would seek a minimally invasive approach. (answered post chat)

WKThune: I had Rheumatic fever as a child and heart mummer all my life, now I have a calcified aortic valve. Once the aortic valve is diagnosed as calcified does this condition get worse fairly quick? I have been recommended to have valve replaced, I have no major symptoms I am hesitant to do this since I feel pretty good. I'm allergic to pain! What causes the calcified condition? Can anything be done or change diet and vitamins taken to decrease this without surgery?

Speaker_-_Dr__Gillinov: Once the valve is calcified and severely narrowed - surgery is indicated. The calcium is caused by the rheumatic process. It is now a mechanical problem - it requires a mechanical solution - a new valve.

assistvp: what determines who is eligible (and who isn't) for minimally invasive aortic valve replacement vs the full incision?

Speaker_-_Dr__Gillinov: The approach depends upon safety. If preop studies including the cardiac catheterization show that the patient needs only AVR - a minimally invasive approach is usually possible..

Allen_B_III: I am not sure, I am in a kind of fog right now. Dec. 28th went to cardiologist on recommendation of my primary heath Dr. I see him for diabetes. I'm 60 last July. he said he thought he heard a murmur and had echocardiogram done on dec 29th and saw associate on 30 dec. Another "Dr. bad bed side manner" introduced self and said "what do you think about open heart surgery" my Father in 1967 had valve replaced and lived 2 days. What could I say I know big changes since then but I think he could have approached me differently. What I got out of the meeting is my aortic valve appears to be opening 0.7cm (not real good) and they wanted to do an angiogram for further test the were unable to determine if I had a tri or bi flap valve with the calcium build up. So I guess that Friday the 15th Jan 2010 I will find out the next set of steps I will take here in cold Connecticut. Your book is helping me get a good list of questions for the DR.'s and understanding what is going to happen I guess it is more a question if repair/replace when and where. I will do what has to be done and am ready for what is to be done. "don't worry instead ask the question can I do anything about the situation. if the answer is yes. Don't worry DO SOMETHING ABOUT IT. If the answer is no. Don't worry YOU CAN'T DO ANYTHING ABOUT IT."

Speaker_-_Dr__Gillinov: It sounds like you have aortic stenosis. This is treated by replacing your aortic valve. An angiogram will be done before surgery to see if you also need bypass surgery. If you do not need bypass surgery, you are probably a candidate for a minimally invasive approach to your aortic valve surgery. That would speed your recovery.

Marge_W: : I live in Carmel CA., 74 yr old woman, anticipating aortic valve replacement. Very interested in knowing what the prognosis is for elderly folks…..and what the recovery time is……how debilitated they are from the surgery. How would the quality of life be 'improved'? And, yes, I thing this kind of interview with these doctor's would be great.

Speaker_-_Dr__Gillinov: The surgery will make you live longer and will make you feel better and stronger. You will be in the hospital for 5 or 6 days and you will recover fully by about 2 months.

dukefan55: I have a Bicuspid Aortic valve with mild stenosis and a 4.3 cm Ascending Aortic aneurysm .When should I have surgery to correct this and what type valve would you recommend? I am a 55 yr old female. Thanks!

Speaker_-_Dr__Gillinov: I favor tissue valves. Surgery when the aneurysm is 5.5 cm. (answered post chat)

buckeyefan: If one has an Edwards bovine aortic valve, can this be replaced in the future by percutaneous insertion?

Speaker_-_Dr__Gillinov: Probably. (answered post chat)
Minimally Invasive and Robotically Assisted Surgery and Percutaneous Options

Joseph_D: I may have to have a percutaneous heart valve replacement. Can I get it done at Cleveland Clinic? Is there a facility closer to Detroit, e.g. University of Michigan, Harper Woods Hospital in Detroit, or any other?

Speaker_-_Dr__Gillinov: I know Cleveland Clinic can do this. Not sure about places in Michigan.

Alice_R: I have read various articles on the internet. There has been advancement in aortic valve replacement surgery. Does Cleveland Clinic do minimally invasive robotic surgery for an aortic valve replacement?

Speaker_-_Dr__Gillinov: We do minimally invasive surgery but it is not feasible to use the robot for this.

Anna_M__S: Can you discuss the statistics on the success rate of non-intrusive surgery versus more traditional open heart surgery for aortic valve replacement.

Speaker_-_Dr__Gillinov: For minimally invasive aortic valve surgery, in experienced hands, the operative risk is slightly lower than for standard sternotomy. Our operative risk is generally less than 1%.

Sam_S: Are you performing aortic valve replacements in the minimally invasive procedure carried out through the third intercostal space (in-between two ribs) and therefore eliminating any bone cutting? If so, who may be a candidate for this procedure and why?

Speaker_-_Dr__Gillinov: We prefer to make a similar sized incision in the center of the chest. This gives superior exposure of the aortic valve.

Alex: I am 30 year old male and I have a congenital cleft of MV anterior leaflet and 4+ regurgitation. There is no hole between the chambers etc. I don't have any other disease or symptoms related to MV prolapse. I want to know the chances of successful repair using robotics. Is it true that repair of anterior leaflet does not hold well and even if I get

a successful repair, the sutures may fail over time? Can build-up of scar tissues on the valve-leaflet in long run cause the repaired valve to fail? Thanks.

Speaker_-_Dr__Gillinov: It is likely that a robotic repair can be performed in you. The probability of successful repair is very high (more than 90% in general). A successful repair is likely to last at least 20 years, maybe a life time.

bagleymtman: I have a grade 2+aortic valve regurgitation with aortic root dilated to about 5.0 mm. My Heart cath last week was normal (no blockages of arteries). My cardiologist feels that I may be able to have my valve repaired rather than replaced which is great because I don't want to deal with Coumadin. I am a 61 yo male in good general health (run, bike, canoe/kayak, climb). If I need the valve replaced, I am leaning toward a porcine or bovine valve rather than a mechanical valve. Does this make sense? If I need only the aortic root replaced with a graft, can that be done with minimally invasive techniques to decrease the recovery time? Has there been any further revelations regarding the ON-X valve as far as use of anticoagulants? Thanks.

Speaker_-_Dr__Gillinov: It may be possible to do this minimally invasively - it depends on results of your preop studies including cardiac cath, echo and cT Scan. I think a tissue valve is reasonable if a replacement is necessary.

Bow_R: My question concerns the pros and cons of minimally invasive surgery vs. regular open heart surge for aortic valve replacement. My understanding is that minimally invasive surgery results in a smaller incision that MAY result in faster recovery. Are there other advantages? More importantly, are there more/different risks in the minimally invasive procedure as compared to regular open heart surgery? What criteria should be considered for doing one or the other?

Speaker_-_Dr__Gillinov: Safety, safety, safety. Safety is the key consideration. I favor minimally invasive or robotic surgery when I can do the same operation with the same safety. Then, recovery is faster, blood loss is less, and cosmesis is better.

Don_S: Why is Open heart surgery used instead of the minimally invasive approach when Aortic valve repair or replacement is needed?

Speaker_-_Dr__Gillinov: Minimally invasive approaches to the aortic valve are generally possible in most people who need aortic valve surgery—unless they also need bypass surgery.

Peggy_L: I would appreciate a discussion of minimally invasive aortic valve replacement for elderly (90’s) patients….such as Core Valve and Edwards Sapien…. any other suggestions for this age group.

Speaker_-_Dr__Gillinov: The percutaneous valves are an excellent option in that age group. These valves are not yet widely available in the US. They are not yet FDA-

approved. Therefore, many elderly patients have minimally invasive heart surgery (with a small incision). Nearly all do well.

Co-existing Medical Conditions and Valve Surgery

Lin: i have a question regarding my father, he is 61 years old, he recently wanted to get his mitral valve replaced caused by the mitral regurgitation, but after he did the lung tests (ct scan and chest x-ray), the doc said the risk of the surgery is very high because of emphysema and bulla of the lung (on both sides), the doc said his lung can work properly without touching it even it has alot of problems, but once have the open heart surgery, he might not survive without apparatus or even worse… im sooo scared to have him to get it done as the doc told us the risk is either 100% success or 0% failure… I would like to seek some advice from you, i know he has to get his mitral valve replaced soon or later, and the sooner the better, but the music we are facing right now is that the risk is so high and we all scared to do it…would you please advise me more on the risk of his surgery, is it true like the doc said? what other necessary options can he take? they currently live in china, and might consider to get it done in the states if he has a better chance… im really really worried, because 61 is not that old, and i don't want to him to live rest of his life in such low quality life style. i know i probably haven't provided you with very detailed info, he has done all kind of tests before the surgery, and have a lot of the test results on hand, please do let me know if you need further info on his condition. thanks so much to spending your time on the post, i really appreciate if you can give me some suggestions!

Speaker_-_Dr__Gillinov: The issue is his lung function. We need the numbers from his pulmonary function tests. If he is not a candidate for surgery, we may have a non-surgical option for him.

sunlin: My dad needs a mitral valve replacement due to regurgitation. He is 61 years old, but he has emphysema and lung bulla on both sides. Would it be a great risk to take since his lung is not in a good condition? (maybe cant take off the apparatus after the surgery or even worse?) What would be your advice on this kind of situation? Should he take the risk or not? If not, how long can he survive without replacing a new biological valve?

Speaker_-_Dr__Gillinov: He needs to see a pulmonary doctor first and undergo formal evaluation - most people with COPD do tolerate heart surgery.

Claire_W: OMG, My mother's cardiac surgeon (supposed to be the top expert) at Allegheny General Hospital in Pittsburgh just cancelled her open-heart surgery, which was scheduled for tomorrow, Feb 4. He said he was afraid she would bleed to death on the operating table, HELP. She is 79 in great health, except for severe calcification of her aortic and mitral valves. She was going to have them replaced. Can Cleveland clinic do the surgery??? Have you ever heard of a case that could not be operated on. Her stress test, blood work, echocardiogram, TEE, x-rays, etc all showed she has a very strong muscled heart, its just the valves are failing. PLEASE HELP--I love her so much. P.S. Her symptoms are shortness of breath and fatigue after exertion

Speaker_-_Dr__Gillinov: We would be happy to evaluate her. Please contact us for instructions on how to send in records for review

AMachtay: Can severe Mitral Valve Regurgitation cause syncope?

Speaker_-_Dr__Gillinov: Uncommonly. (answered post chat)
Pulmonary Valve

Jannie_Mae: I am a mother of a 2 yo boy, my son had an open heart surgery when he was 5 days old, because of a congenital defect, pulmonary valve atresia. I would like to know more about this so that i can watch over my son as he grows up.

Speaker_-_Dr__Gillinov: The good news is that replacement of the pulmonary valve can now be performed without surgery in the US—FDA approval issued last week. I would make sure that you are seeing a pediatric cardiologist at a leading center.
Heart Surgery Recovery

Greg_P: I am a 48 year old male with BAV. I have no real issues with stenosis to date. I do have an issue with an enlarged aorta. The enlargement is at the root (4.4 cm). I would like to know your thoughts on aerobic exercise for someone in my condition. I currently run about 20 miles per week. I have shifted to running inside on a treadmill and occasionally use of a elliptical trainer. I guess I did this for peace of mind in case something happens I would have people around to call for help. Should I be monitoring my blood pressure while exercising? I don't have any blood pressure issues at this time. Typically averaging, at rest somewhere around 125/85. I am also scheduled my 6 month Eco follow up the first of March. Thanks.

Speaker_-_Dr__Gillinov: Aerobic exercise is fine. You do not need to monitor your blood pressure - I would refrain from lifting weights. I would recommend getting a CT scan every 6 months rather than an echo.

Jill_H: My wife had an AVR there on July 24, 2009 and we returned to California on July 31. Dr. Lytle is her surgeon. She is fully recovered and very thankful to have been assisted by the Cleveland Clinic team. She has a cardiologist here, but wishes to continue treatment there. What is the recommended treatment after AVR?

Speaker_-_Dr__Gillinov: Have an echocardiogram once per year. Take antibiotics before dental or other procedures.

buckeyefan: Dr. Soltesz replaced my aortic valve and did 2 bypasses 10/30/09. He did a great job. I've got the Edwards bovine valve and wonder how long this might last. Also, the skin around my incision is extremely sensitive -- is this normal and how long does it last?

Speaker_-_Dr__Gillinov: In some people the valves last up to 20 years. The skin sensitivity should be going away soon. If it does not - I would see a neurologist for treatment.

roullac: Dr Gillinov I am a 54 year old female who underwent Mitral Valve Repair (sternotomy) in August 2009 at your center. I have a couple of questions which I would be grateful to hear your view. My hobby is belly dancing and I was hoping to teach one day. Given the fact that I had this sort of surgery would you advise me to carry on belly dancing since I believe that my heart beat should not exceed 130 beats per minute? Would I be able to do this as a profession without any worries? Should my heartbeat goes over 130 beats

Speaker_-_Dr__Gillinov: You can continue belly dancer - and it is ok for your heart beat to exceed 130 - but always check with your personal doctor first to make sure.

Micki: My surgery was 8 months ago. My sternum has not healed properly. I can still feel it move. My surgeon can feel it as well and CT scans have proven that. I am scheduled for surgery later this month. I have been informed that there are a few options but they won't know for sure what the procedure will be until they open me up and see what is there. Is this normal? And should I be concerned? I originally had a bicuspid aortic valve replaced with a bovine valve and had a 5.5cm aneurysm in the ascending aorta. The aorta was very thin and needed to be grafted. 16 hours after my surgery I did code twice and a week later had a defibrillator inserted. I feel great but I am concerned I am 63 yrs old and in excellent health. All of this came as a surprise to me when I made a visit to an emergency room just because I felt odd. I am so glad I made that visit.

Speaker_-_Dr__Gillinov: Sternal rewiring is the most common procedure for failure of healing - it is usually very straight forward and is almost always successful

Doug: I am 2 years post Ross procedure (on Feb 12th). I love to lift weights. What precautions should I be aware of when lifting weights? My surgeon told me that I should focus on light weight and high repetition (which is what I do). I've slowly started moving up in weight, but certainly not too heavy. Also, can I drink protein shakes? What would be the reason that I couldn't? Thanks for taking time out to do this!!!

Speaker_-_Dr__Gillinov: You can eat or drink anything you want. I think you can also start lifting heavy weights.

sue: You replaced my mitral value last January. I am now 70 years old. I walk on a treadmill for 60 minutes 3 times a week. Which is better to do, 60 minutes 3 times a week or do 30 minutes each day. Thanks again for all you have done for me. :-)

Speaker_-_Dr__Gillinov: Glad you are doing so well!!

Cheryl: Originally I was going to ask the doctor about my pvc's but in talking that over with my rehab nurse this morning I think I understand why I have it and they are benign.

I am an active 60 year old female and had a mitral valve P2 section repair done Oct 1/09. I still have AI, TR (mild to moderate) and the mitral valve regurgitation has decreased from 50% to just a trace. The surgeon doesn't anticipate my needing further surgery. I don't believe I've ever had rheumatic fever - but I did suffer some episodes of strep throat as a child and was medicated properly at those times. I am in weekly rehab and would like to know about the benefits and how it works. Patients initially do a stress test and from the results of that test, there is a heart rate zone we are to strive for. I exercise daily at home on a treadmill using a pulse rate monitor and am not even breaking a sweat. I suppose I'm impatient in wanting to do more. In December my resting pulse rate was about 54 bpm and very, very erratic and in January my pulse has increased to a resting rate of 74-84. My recommended exercise rate is 94-104 although the initial test results indicated I could go as high as 110 bpm. The nurse doesn't think I'm ready for that yet so we're keeping it a little lower. Adam, I quite understand if the doctor doesn't get around to answering this question as there are so many other much more important questions listed already. If that is the case, perhaps this is something you can address somewhere else on your website. Questions:

Speaker_-_Dr__Gillinov:

1. My question is - how long does a patient exercise at that particular heart rate before increasing the load? I would aim for 75% of your maximum heart rate after a couple months of rehab.
2. How does the nurse/technician know when to kick it up a notch? What are they looking for in terms of pulse and blood pressure etc? They are mostly watching your heart rate.
3. After a couple months of rehab, would aim for 75% of your maximum heart rate.

Arrhythmias (Abnormal Heart Rhythms)

Marti_S: My husband has had atrial fibrillation all his life. He has had three cardioversions that were ineffective. He has also undergone a triple bypass. While he does not experience any life style problems because of his a fib, we were wondering if he should explore the Maze procedure.

Speaker_-_Dr__Gillinov: He should explore percutaneous (catheter-based) ablation. The Maze procedure is open heart surgery, and should be a last resort in somebody who has had previous heart surgery.

Dwight_W: What % of open heart surgery patients get arrythmias and why? How long can I be on Amiodarone 100 mg safely. I have taken approx. 17 grams from Oct. 24 (4 1/2 months) and have one more month @ 100 mg. per day. I am very happy with my AVR except had a terrible time with PAC's and A fib starting about a week post op (surgery was Sept. 11/09).Thanks

Speaker_-_Dr__Gillinov: 35% of people get atrial fibrillation after heart surgery. It is usually gone by 3 months. You should be ready to try stopping the amiodarone. It is not a drug you want to be on for more than 6 months.

Fran_Z: Is the maze procedure always effective? You will be doing my surgery, 2 valves and the maze procedure in March and am very thankful to have you as my surgeon. Would you also address the “pump head” syndrome?

Speaker_-_Dr__Gillinov: The Maze procedure is 70-90% successful, but there are questions concerning the procedure that warrant discussion. It can increase the need for a pacemaker and can actually cause arrhythmias. Therefore, working with other major centers, we are conducting an international trial sponsored by the NIH to study the maze procedure. Pump head—real neurological changes after heart surgery—is uncommon.

xii286: 9 weeks post aortic valve replacement/ MVR at CC by Dr. Pettersson, I'm doing great except for Af flutter. I've got an initial appointment with Dr. Dr. Tchou next week. Should I expect any procedure later in the week? Also, how soon will "Super Glue" be used to heal the sternum like is now being used in Canada?

Speaker_-_Dr__Gillinov: I would not expect an invasive procedure at your appointment - it sometimes just take time for it to go away. He may recommend an electrical cardioversion, which is not invasive.

There are glues available to help with sternal healing. They are rarely necessary.

Tanya_S: Dr. Gillinov repaired my tricuspid and replaced my mitral valve last year. My experience at Cleveland was excellent. I had previous repair surgery with multi complications so I have lots of experience to draw from. LOL. I have been getting PACs for the last few months and would be interested to find out what causes this. How common is it? Do the PACs affect the repairs or cause any future complications. I was also interested in some of the questions asked in the previous postings

Speaker_-_Dr__Gillinov: PAC’s are common after heart surgery but usually go away with a few months’ time. The precise cause is unknown. If they are bothersome, I would ask your cardiologist for a low-dose beta blocker. These medicines suppress the PAC’s

Morton_K: How much additional time is required for a Mayes procedure added to an aortic valve replacement. What are the results for atrial fibrillation with this procedure. Will it reoccur?

Speaker_-_Dr__Gillinov: The Maze procedure requires about 20 minutes. Its success depends on how it is done and the person’s characteristics. In general, it is about 70% successful in eliminating atrial fibrillation.
Medications: Anticoagulants and other Medications

Cheryl_I: I would be interested but I'll be 4 months post-op by then so I'd be asking post-op questions such as why my heart beat is still so irregular - something referred to as ? pcp's - and I want to know if this is dangerous and if my heart beat will ever be regular. I had a mitral valve repair and now my mitral valve still has "trace" but minimal regurgitation, minor AI and mild to moderate tricuspid regurgitation.

Speaker_-_Dr__Gillinov: Your valves sound fine. I would consider a low dose beta blocker for the heart rhythm. The rhythm should be settling down soon

M_Montgomery: Is there an alternative medication to Coumadin for anitcoagulant therapy that may become available in the near future ? I have a mechanical aortic valve and of course have to be on Coumadin the rest of my life unless something new and better becomes approved.

Speaker_-_Dr__Gillinov: There is an alternative in Europe. The new medicine is easier to dose and does not require routine blood tests. When will it be available in the US? That depends upon the FDA.

kathy: had minimally invasive arotic valve replacement at cleveland clinic dec. 09. how long could i be on metoprolol? i normally do not have a blood pressure problem?

Speaker_-_Dr__Gillinov: That is difficult to answer. It depends on the reason for being placed on the metoprolol. At your 3 month follow up visit with your cardiologist - it is likely that your medications will be re-evaluated.
Multi-valve Disease

Vicki: I'm a 46-yr old female. I had my VSD closed and aortic valve repaired a year ago. My aortic valve (mild AI) was repaired because one of the leaflets was being pulled through the VSD. I also had some muscle bundles removed due to double-chambered right ventricle. Six months ago, I found out that I now have mild insufficiency in my aortic, pulmonary and tricuspid valves. Several questions

Speaker_-_Dr__Gillinov: I have answered each of your questions below:

1. What would cause both my pulmonary and tricuspid valves to leak when they weren't before the surgery? Probably changes in your heart's function and morphology.
2. What is the long-term outlook of all three valves? Need for repeat surgery is unlikely. Get an echo once a year.

gs443453: Thanks for having this chat session, my father is 79 yrs old and has 4 leaking valves, he is always short of breath is this a side affect? he has seen a pulmonary doctor and his lung and breathing is fine

Speaker_-_Dr__Gillinov: He will feel better with repair of his valves. (answered post chat)
Heart Surgeon, Heart Team, Surgery Center

shaneme123: I know that there is a lot of focus around the heart surgeon; but how can a patient evaluate the support Team (heart/lung operator, anesthesiologist, nurses, etc.)? They play such an important role.

Speaker_-_Dr__Gillinov: I would ask your heart surgeon if he or she works with a consistent team. You are correct - heart surgery is a team sport.

shaneme123: For an 'out-of-towner' having aortic valve replacement, what is the typical length of stay close to the Clinic? After release, how many times would we need to visit the Clinic again?

Speaker_-_Dr__Gillinov: For preop testing, surgery and recovery, plan to be in Cleveland about a week. We have 3 hotels directly on campus to assist. (answered post chat)

ecomai: What collaboration efforts do you and the staff have with cardiologists for heart patients with existing conditions?

Speaker_-_Dr__Gillinov: We work as an integrated team including cardiologists, cardiothoracic surgeons, vascular surgeons and vascular medicine doctors. This enables us to bring many different types of expertise to every patient.

Cleveland_Clinic_Host: Thank you again Dr. Gillinov and thank you Adam Pick's community for joining us. Seeing how successful this chat was, we will try to host another chat in the next couple of months if you are interested!

Speaker_-_Dr__Gillinov: Thank you for having me today.

IV. Contact Information For Dr. Marc Gillinov

If you need more information or would like to make an appointment with a specialist, contact us, chat online with a nurse or call the Miller Family Heart and Vascular Institute Resource & Information Nurse at 216.445.9288 or toll-free at 866.289.6911. We would be happy to help you.

V. Disclaimer

This information is provided by Cleveland Clinic and is not intended to replace the medical advice of your doctor or health care provider. Please consult your health care provider for advice about a specific medical condition.