

Valvular Heart Surgery

The heart has four valves: triscuspid, pulmonic, mitral and aortic. While all are key to normal heart function, the mitral and aortic valves are of primary importance in that they are the valves that let blood flow in and out of the left ventricle (the heart's main pumping chamber). Therefore, these two valves have the greatest influence on mortality if they are not functioning properly.

Generally, the first indication of a heart valve disorder is a heart murmur. This is an abnormal sound produced by the flow of blood through a malfunctioning heart valve. Typically, heart valve disorders that cause murmur(s) are diagnosed as one (*or more*) of the following:

- Mitral Stenosis is a narrowing of the valve opening, most often due to rheumatic fever.
- > **Mitral Insufficiency** (i.e. mitral regurgitation) is the failure of the valve to close properly, thus allowing blood to flow abnormally back into the left atrium.
- Mitral Valve Prolapse (MVP) is a condition in which floppy valve leaflets (i.e. cusps) fail to close properly.
- Aortic Stenosis is a narrowing of the valve opening. The cause can be congenital or acquired. A bicuspid aortic valve (i.e. only two valve cusps instead of three) is an example of a congenital condition.
- > Aortic Insufficiency (i.e. aortic regurgitation) is the failure of the valve to close properly, thus allowing blood to flow abnormally back into the left ventricle.

Significant valve disease usually requires surgical intervention. It is possible to repair some valves while others need replacement with a prosthetic valve. Prosthetic valves of artificial material, such as metal or carbon, are very durable and can last decades. However, artificial valves require on-going anti-coagulation therapy (*i.e. blood thinners*) to prevent thromboembolic complications (*i.e. blood clots*).

Replacement valves can be made of organic tissues as well (*i.e.* pig valve, cadaver valve, bovine pericardium). They don't last as long as artificial valves (8-15 years), but anti-coagulant therapy is not necessary. Anti-coagulation itself adds a level of risk.

Surgical repair (*rather than replacement*) for stenotic valves involves commissurotomy (opening or tight valve, i.e., with a balloon) or valvuloplasty (tightening a loose valve with suture stitches). Many times, mitral stenosis can be relieved by a balloon procedure via catheter. Repair is commonly done for the regurgitant mitral valve, thus avoiding mitral valve replacement. Repaired valves have a better prognosis than replaced valves.

Mortality risk is increased when valve disease is accompanied by such problems as arrhythmias, heart enlargement, and/or compromised heart function.

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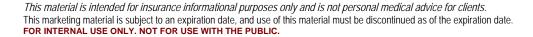
Ratings for valve replacements generally are as follows:

within 6 months of surgery	postpone
ages less than 15	individual consideration
ages 15 - 39	Table F plus \$5 x 20 yrs.
ages 40 - 59	Table D plus \$2.50 x 20 yrs.
ages 60 & over	

These ratings presume there is no history of arrhythmia, heart enlargement, or decreased heart function. Higher ratings may be given if a tissue valve is used or if multiple valves are replaced. The ultimate rating for those having undergone repairs is based on the significance of the post repair underlying valve disorder and success of repair, but no less than Table B.

Prior issues of "Rx for Success" have addressed many of the heart murmurs referenced above. Please reference the issues on the website.

To get an idea of how a client with a history of Valvular Heart Surgery would be viewed in the underwriting process, feel free to use the attached Ask "Rx" pert underwriter for an informal quote.





Valvular Heart Surgery - Ask "Rx" pert underwriter (ask our experts)

Producer	Phone	Fax	
Client	Age/DOB	Sex	
If your client has had valve surgery, pechocardiogram.	please answer the following	questions and enclose the	e most recent
1. When was the surgery completed?			date)
2. Please note type of valve surgery: Valve replacement Commissurotomy	□ Valvuloplasty □ Other	,	
3. Please check the type(s) of Valve I Aortic stenosis Aortic insufficiency Mitral valve prolapse	□ Mitr	al stenosis al insufficiency	
4. Please note type of valve used if re □ prosthetic (mechanical)	•	ne (porcine, bovine, cadav	ver)
5. Have any of the following occurred chest pain	es □ no heart f es □ no dizzine	failure □ yes ess/fainting □ yes	□ no □ no
6. Is there a history of any other hear □ yes, please give details □ no		-	-
7. Is your client on any medications? yes, please give details no			
8. Has your client smoked cigarettes yes no	in the last 12 months?		
9. Does your client have any other many of the many of			
After reading the Rx for Success on \alpha an informal quote.	/alvular Heart Surgery, plea	se feel free to use this As	k "Rx" pert underwriter for

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