



# Heart Murmurs

May 2018

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*Heart Murmurs* is the newsletter of CASE published in February, March, April, May, September, October, November and December each year. Suggested articles can be submitted to Barry Clark at [kbclark1@telus.net](mailto:kbclark1@telus.net) Back issues of the newsletter are posted on the CASE website at: <http://www.edmontoncase.ca>

If you wish to unsubscribe from this newsletter, please e-mail [stuart\\_e@telus.net](mailto:stuart_e@telus.net) with a subject line 'unsubscribe'.

## **Cardiac Athletic Society Edmonton -Board**

President -	Gary Duguay
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News and Communications	Barry Clark with Stuart Embleton
Education and Special Events	Mae Hadley
Social Events-	Shirley Evans with Elaine Kirschner and Marilyn Prusko
Hearts and Flowers	Gerri & Cavan Devlin
Director at Large	Wayne Saunders
Director at Large -	Roberto Cruz

### **Support for CASE**

As a recognized charitable institution, CASE makes a significant difference to people interested in maintaining their heart health. If you make a financial gift, either as a direct contribution, or in the memory of a member who has passed, we will issue a tax receipt.

## **CASE ANNUAL BBQ COMING SOON**

The CASE BBQ is being held Friday, June 8th at SEESA with cocktails at 5:00 PM and dinner at 6:00 PM. BBQ tickets are available from Roberto Cruz at 587 759 8861, Gary Duguay assisting at 780 433 8628. Tickets are \$30.00 each. The deadline for ticket sales will be Tuesday, June 5th. The menu includes steak, chicken, baked potatoes, baked beans, salads, with strawberries, ice cream and homemade cookies for dessert. Beverages are included.

We are asking for ten members to provide salads. If you can make a salad, contact Marilyn Prusko at 780 436 1390. The salad providers will be reimbursed \$ 10.00.

We look forward to seeing you there.

## ***EDUCATION EVENING***

The topic for the May 14 Education Evening will be 'Mindful Aging'. It will be held at 7:00PM at Terwillegar Recreation Centre in Multi-Purpose Room B on the second floor above the hockey rinks. Look for more information on the speaker in an e-mail closer to the date.

## ***IT MAY BE LATE BUT SPRING IS HERE... FOR NOW***

***Golf:*** Depending upon weather, and assuming the course dries out, golf will commence at noon on the first Wednesday in May at Twin Willows Course. Wayne Saunders is coordinating the golf program this year and you can get in touch with him at 780-461-8898 for more information. Beginners are welcome. PGA pros are not.

***Walking:*** The first walk is scheduled for Friday May 11. There will be an e-mail the week before to alert you as to time and place. The walks usually take around 90 minutes. Family and friends are most welcome. The second walk is tentatively scheduled for Friday June 1. Hope to see you there!

***Exercise Classes:*** Just a reminder from Wayne Jackson that the regular exercise programs at Terwillegar continue uninterrupted over the summer months. Keep up your program!

## ***ED ABEL GOLF TOURNAMENT***

The annual Ed Abel Golf Tournament is booked for July 12. This is one of our major events and even if you are uncertain of how to grasp a club you will have fun at this event. Look out for e-mails as the date approaches!

## ***A BELATED THANK YOU***

Gary Duguay and the rest of the board want to express their heartfelt thanks to Al Pape and Elaine Kirschner for their past service to CASE as board members for the last few years. It is service like theirs that has helped CASE to build, and thrive, over the years. The board misses their valued input.

## ***A NEW WAY TO REPAIR DAMAGED HEART TISSUE***

ALTHOUGH the possibility is several years away, one day people may be helped to recover from heart attacks by having specially engineered patches that have been seeded with cardiac cells placed over the damaged tissue in their hearts. The idea is that these cell-impregnated patches will encourage the regeneration of heart muscle. Laboratory studies using animals suggest the advantages could be so great that it is worth the risk of

the surgery needed to put such patches in place; they might even provide an alternative to heart transplants. The problem is finding a suitable way to make the patches stay put.

Stitching is one possibility, but sutures bring risks. They might block the blood supply to the vulnerable area, or injure nearby healthy tissue, or cause haemorrhages. They might also introduce harmful bacteria. Nor is gluing much better in practice. Some glues stiffen with age. Some are mildly toxic. Some are not porous enough to permit cells to grow and move around. To ameliorate these problems, one of the researchers working on such patches, Tal Dvir of Tel Aviv University, in Israel, is developing a new type of cardiac scaffold that can secure a patch in place using light instead of stitches or glues.

The inspiration came from recent work his research group has carried out using tiny particles of gold. These can be warmed and manipulated by light from the red end of the spectrum, which travels well through tissue. He found himself wondering whether he could create a supportive scaffold by mixing albumin, a common protein, with tiny particles of gold and then sculpting the resultant material with a laser into a shape that would fit the damaged tissue so snugly that neither stitches nor glue would be needed.

To this end, as he explained recently in *Nano Letters*, they mixed albumin with a solution of beta-mercaptoethanol and trifluoroethanol, which softened the protein so that they could spin it into ribbonlike fibres. They used these fibres to build cardiac scaffolds, then soaked the scaffolds in suspensions of the golden particles for an hour, during which period most of the particles attached themselves to the scaffolds. After that, they added the cardiac cells.

This done, they tried attaching the scaffolds to hearts taken from pigs. They laid them on the organs and played the laser over them. As they had hoped, this softened the scaffolds, which then moulded themselves to the surrounding tissue and subsequently remained in place.

Researchers worried that heat generated when the laser struck the gold would end up cooking nearby tissue. To assess that risk, they ran a second experiment applying the scaffolds to the hearts of living rats, fused them into place with the laser and then studied those hearts for cell damage. They found none. More importantly, when they analysed the patched hearts in situ for health and function, they noted that the scaffolds were not impeding them at all.

There is a long way to go, but Dr Dvir does seem to have found a promising way that one day could help people recover from heart failure.

Source: The Economist, Print edition Science and technology Mar 28, 2018

## ***DEEP-VEIN BLOOD CLOTS: KNOW THE SIGNS***

If you scrape your leg, blood clots come to the rescue to heal the wound. However, if a blood clot forms deep inside a leg vein, it's a different story. Known as a venous thrombosis (a term meaning "blood clot in a vein") this type of clot can cause pain, swelling, and redness in the affected limb. When one forms in a leg or arm, it's called deep-vein thrombosis (DVT). But the real threat happens if the clot breaks off and travels to the lungs, causing a pulmonary embolism.

One, or both, of these conditions strike at least 900,000 Americans each year, killing over 100,000. But many Americans don't recognize the symptoms or the serious nature of venous thromboembolism, or VTE. Pulmonary embolisms are twice as deadly as heart attacks.

Until recently, doctors thought of a VTE as a short-lived condition that could be successfully treated with a brief course of anti-clotting drugs. It now is understood that it is a chronic illness that may require lifelong management. In fact, the same factors that make people more likely to have heart disease, such as high blood pressure, smoking, and obesity, also make them more susceptible to a VTE. Most cases occur in people ages 60 or older, but younger people can get them too.

***Common causes:*** Damage to a blood vessel, from either an injury or surgery, can provoke a blood clot. Being confined to bed during the recovery period leads to sluggish blood flow, further increasing the risk. More than half of VTEs are related to a recent hospital stay or surgery, but most do not occur until after leaving the hospital. Undergoing treatment for cancer also raises risk as can prolonged sitting during long-distance travel.

Between 5% and 8% of people have one of several inherited disorders that make them more prone to clots. If you or a family member has suffered a VTE, ask your doctor about family testing for clotting disorders, which might be considered if there was no other explanation for the clots.

***Treatment for clots:*** Treating a VTE typically includes injections of an anti-clotting drug such as heparin, followed by drugs such as rivaroxaban (Xarelto), apixaban (Eliquis), dabigatran (Pradaxa), or edoxaban (Savaysa), which are taken in pill form. People with less serious cases may need only oral drugs. More serious cases may require clot-dissolving medications given through an intravenous line or through a catheter which is done in a hospital.

How long to stay on the anti-clotting drugs depends on the specific situation. When a clot develops after surgery, doctors often recommend staying on the drug for three to six months. But there's an increasing trend to keep people on the medications for longer

time periods, in part because of the chronic nature of the problem. Three in 10 people who have a VTE will have another episode within 10 years.

***Preventing Deep Vein Thrombosis (DVT):*** If you are scheduled for surgery or are confined to bed because of an illness or injury, talk to your doctor about ways to prevent DVT. For most people, walking as soon as possible after an operation lowers the risk. Doctors sometimes prescribe anti-clotting drugs in high-risk people after surgery. Another option is graduated compression stockings. These knee-high socks apply pressure to the lower legs, with the greatest pressure at the ankle. They gently increase blood flow from the ankle toward the thigh.

If you must remain seated for several hours at a time such as on a plane, in a train or car, at work, or even at home, the following tips may help prevent DVT:

- Get up and walk around every hour or two.
- While sitting, flex and extend your ankles and knees occasionally.
- Avoid crossing your legs.
- Change positions often while seated.
- Stay well hydrated by drinking plenty of water.

<b><i>Symptoms of deep-vein thrombosis</i></b>	<b><i>Symptoms of a pulmonary embolism</i></b>
<p>The affected area may be</p> <ul style="list-style-type: none"><li>• tender or painful, with no known cause and worsening over time</li><li>• swollen, red, and warm to the touch.</li><li>• If these symptoms linger for more than a few hours, call your doctor for advice.</li></ul>	<ul style="list-style-type: none"><li>• difficulty breathing that happens suddenly, without an explanation</li><li>• a fast or irregular heartbeat</li><li>• chest pain or discomfort, which usually worsens with a deep breath or coughing</li><li>• coughing up blood</li><li>• very low blood pressure</li><li>• feeling lightheaded or faint.</li><li>• <b>If you have these symptoms—especially if they worsen quickly over a period of hours—call 911 right away.</b></li></ul>

Source: January 1, 2016 Harvard Heart Letter [http://www.health.harvard.edu/heart-health/deep-vein-blood-clots-know-the-signs?utm\\_source=delivra&utm\\_medium=email&utm\\_campaign=GB20160127%2DAlzheimer&mid=11072240&ml=77981](http://www.health.harvard.edu/heart-health/deep-vein-blood-clots-know-the-signs?utm_source=delivra&utm_medium=email&utm_campaign=GB20160127%2DAlzheimer&mid=11072240&ml=77981)



# CASE Events Calendar - May 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	2 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	3 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	4	5
6	7	8 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	9 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	10 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	11	12
13 Mother's Day	14 Education Self Help Mindful Aging. TRC 7:00 PM	15 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	16 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	17 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	18	19
20	21 Victoria Day	22 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	23 <b>Social Breakfast</b> 9:00 AM SEESA Golf Noon Tee off.	24 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	25	26
27	28 Board Meeting Bonnie Doon 9 a.m.	29 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	30 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	31 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45		

# CASE Events Calendar - June 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	<b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	6 Golf Weather Permitting Twin Willows Golf Club Noon Tee-Off	<b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	8 <b>CASE Annual                      Barbecue                      5:00 PM                      SEESA</b>	9
10	11	<b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	13 Golf Weather Permitting Twin Willows Golf Club Noon Tee-Off	<b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	15	16
17 Father's Day	18	<b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	20 Golf Weather Permitting Twin Willows Golf Club Noon Tee-Off	<b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	22	23
24	25	<b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	27 <b>Golf, Weather Permitting</b> Twin Willows Golf Club Noon Tee-Off <b>Soc Bkfst SEESA 9am</b>	<b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	29	30



# CASE Events Calendar - July 2018

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Canada Day Holiday	2	3 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	4 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	5 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	6	7
8	9	10 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	11 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	12 Ed Abel Golf Tournament Twin Willows Golf <b>Exercise Program</b>	13	14
15	16	17 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	18 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	19 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	20	21
22	23	24 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	25 <b>Golf</b> , Weather Permitting Twin Willows Golf Club Noon Tee-Off <b>Soc Bkfst SEESA 9am</b>	26 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	27	28
29	30	31 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45				

# CASE Events Calendar - August 2018

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	2 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	3	4
5	6 Civic Holiday	7 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	8 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	9 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	10	11
12	13	14 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	15 <b>Golf, Weather Permitting</b> Twin Willows Golf Club Noon Tee-Off	16 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	17	18
19	20	21 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	22 <b>Golf</b> Twin Willows Golf Club Noon Tee-Off <b>Soc Bkfst SEESA 9am</b>	23 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	24	25
26	27	28 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	29 <b>Golf, Weather Permitting</b> Twin Willows Golf Club Noon Tee-Off	30 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	31	