



# Heart Murmurs

December 2019

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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**

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Social Events-	Colleen Foster
Hearts and Flowers	Tessie Cruz
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### **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.

*Merry Christmas*



***BEST WISHES FOR THE CHRISTMAS SEASON FROM CASE***



We hope that the Christmas is a good time for all and you can take the opportunity to get together with friends and family to enjoy this season. We look forward to another year getting together with friends and enjoying our exercise and hope that you and your family will enjoy good health in 2020.

***OUR BIG CHRISTMAS DINNER....***

...will happen in a week –Dec 8<sup>th</sup>. December 1<sup>st</sup> is the last date to buy a ticket or to cancel a reservation. For any such last-minute business contact Gary Duguay at [garyduguay@shaw.ca](mailto:garyduguay@shaw.ca) or alternately Wayne Saunders at [sharway@telusplanet.net](mailto:sharway@telusplanet.net). Colleen Foster and aides have everything arranged!

***THE TIME HAS COME...***

The 2020 fees are payable before December 31, 2019. Stuart Embleton will be collecting the fees and issuing the new membership cards for 2020. These cards will be needed to obtain the City's discounted rates on the use of the Terwillegar Family Recreation Centre and participation in the CASE exercise and volleyball programs.

***MARK THE DATE! WELCOME BACK DINNER***

To welcome in the New Year, we traditionally go out for a dinner together after Thursday exercise in January. The details this year are:

- Thurs. January 30, 2020 - 6:00 p.m.
- Boston Pizza Team Room, 4804 Calgary Trail
- Spouses or significant others welcome
- Order from the menu and individual bills are given
- Any questions? Contact Mae Hadley

## ***HEALTHY GUT, HEALTHY HEART?***

If you ask most medical experts about the hottest trends in health research, chances are they'll mention the microbiome. The term refers to the trillions of microbes living inside our bodies, known as the human microbiota. Most of these bacteria, viruses, and fungi dwell deep within our intestines and help with digestion, make certain nutrients, and release substances that have wide-ranging health effects.

"There's a complex interplay between the microbes in our intestines and most of the systems in our bodies, including the vascular, nervous, endocrine, and immune systems. All of these relationships are highly relevant to cardiovascular health," says Dr. JoAnn Manson, professor of medicine at Harvard Medical School and chief of preventive medicine at Brigham and Women's Hospital.

As you'd expect, what we eat plays a major role in the composition of our gut microbiota. And we're learning more about how the substances gut microbes churn out (called metabolites) influence our risk for many chronic diseases, including diabetes, heart disease, and cancer. One of the best known of these gut metabolites, called trimethylamine (TMA), forms when gut microbes feed on choline, a nutrient found in red meat, fish, poultry, and eggs. In the liver, TMA is converted to trimethylamine N-oxide (TMAO), a substance strongly connected with the formation of artery-clogging plaque (atherosclerosis). A 2017 study in the *Journal of the American Heart Association* looked at the connection between blood levels of TMAO and serious cardiovascular problems (mainly heart attacks and strokes).

People with the highest TMAO levels were 62% more likely to experience serious cardiovascular problems than those with the lowest levels. High TMAO levels were also linked to higher mortality rates. What's more, these connections were independent of traditional risk factors, such as diabetes, obesity, and kidney problems. This suggests that TMAO could be a novel target for prevention or treatment strategies.

Gut microbe metabolites are also known to influence other factors closely tied to cardiovascular risk, such as diabetes, high blood pressure, and inflammation. For example, a high-fiber diet may encourage the growth of gut bacteria that produce short-chain fatty acids. A gut that includes these microbes seems to help people with diabetes better control their blood sugar and body weight, according to one study.

Short-chain fatty acids, which are made almost exclusively in the gut, also seem to play a role in regulating blood pressure. Studies in mice suggest that these fats are involved in blood vessel dilation and constriction. This observation is one of many described in a report on the role of microbiota in blood pressure regulation published in the September 2017 issue of *Hypertension*.

Other preliminary findings discussed in the review include

- how high dietary sodium levels change the composition of gut microbe populations
- how toxins released from microbes may influence kidney function, a key player in blood pressure regulation
- how microbes that live in the mouth interact with nitrates from vegetables to form nitrites and nitric oxide, which relaxes blood vessels.

But the entire field is still in its infancy. Growing evidence suggests that dietary habits that are helpful for preventing heart disease (such as avoiding red meat, limiting salt, and eating lots of fiber-rich vegetables and whole grains) also have favorable effects on the gut microbiome.

What about probiotics, the live bacteria found in yogurt, other fermented foods, and dietary supplements? While they potentially can improve diarrhea caused by infections or antibiotics, and may ease symptoms of irritable bowel syndrome, so far the evidence of any definitive health benefit is limited. It's far too early to recommend probiotics routinely for preventing or treating most chronic diseases, says Dr. Manson. "We often don't know if the probiotics are actually getting to the right place and changing microbial flora."

Dr. Manson and other investigators around the country have received major grants to study metabolomics for predicting the risk of cardiovascular disease and diabetes. Metabolomics - the study of metabolites - has been called a missing link that connects the microbiome with human health.

Source: Harvard Heart Letter Published: June, 2018

# CASE Events Calendar - December 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	4	5 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	6	7
8 Christmas Dinner SEESA 5:00 PM	9	10 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	11	12 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	13	14
15	16	17 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	18	19 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	20	21
22	23	24	25 Christmas Day	26 Boxing Day	27	28
29	30	31 New Years Eve				

# CASE Events Calendar

# January 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 New Years Day	2 <b>Exercise Program</b> Terwillegar Rec. Ctre Volleyball 3:45 Aerobic/Stretch 4:45	3	4
5	6	7 <b>Exercise Program</b> Terwillegar Rec. Ctre Volleyball 3:45 Aerobic/Stretch 4:45	8	9 <b>Exercise Program</b> Terwillegar Rec. Ctre Volleyball 3:45 Aerobic/Stretch 4:46	10	11
12	13	14 <b>Exercise Program</b> Terwillegar Rec. Ctre Volleyball 3:45 Aerobic/Stretch 4:45	15	16 <b>Exercise Program</b> Terwillegar Rec. Ctre First Night Supper Boston Pizza	17	18
19	20	21 <b>Exercise Program</b> Terwillegar Rec. Ctre Volleyball 3:45 Aerobic/Stretch 4:45	22 Social Breakfast SEESA 9 am	23 <b>Exercise Program</b> Terwillegar Rec. Ctre Volleyball 3:45 Aerobic/Stretch 4:45	24	25
26	27 Board Meeting Bonnie Doone 9:00	28 <b>Exercise Program</b> Terwillegar Rec. Ctre Volleyball 3:45 Aerobic/Stretch 4:45	29	<b>Exercise Program</b> <u>Welcome 2020 dinner</u> Boston Pizza Tea Room 4804 Calgary Trail 6:00 PM	#VALUE!	