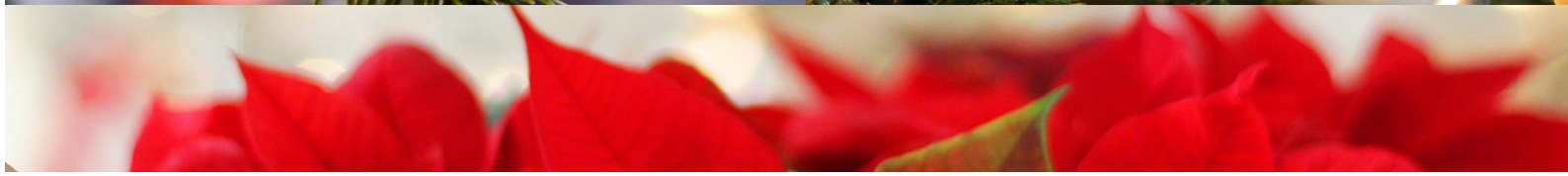




Season's Greetings
from all the team at
INOCA
INTERNATIONAL





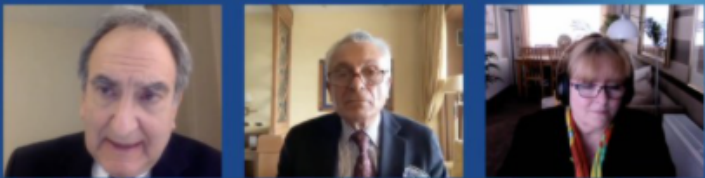
A very warm welcome to the 2021 INOCA International Christmas Newsletter

2021 has been another very difficult year. The hopes of COVID being a distant memory by now sadly did not materialise and as we approach Christmas, we are aware of the Omicron variant and the possibility of yet further restrictions to come. Many of our families, friends and colleagues are working on the front line of this pandemic and are fighting for the lives of so many of our loved ones and we continue to be incredibly grateful for the ongoing sacrifices being made and for the outstanding care being given.

In amidst the Christmas celebrations we do not lose sight of many people around the world who have lost family members and friends in varying circumstances, since the pandemic began. So we begin our Christmas Newsletter with a heartfelt tribute to all those who have passed away this year, to all those who have lost loved ones and to all those who have been affected in any way by the COVID 19 Pandemic.

Our thoughts are with you and for those who follow a faith, our prayers are with you too.

LIVE INOCA WEBINAR



A huge thank you to all involved in bringing together the recent very successful INOCA Live Webinar with guest speakers and INOCA International Medical Advisory Board members, Professor Juan-Carlos Kaski, Professor Mario Marzilli and Founder of INOCA International, Maria George. The webinar gave great focus to what patients themselves feel are the unmet needs of INOCA and what patients themselves expect and want from treating physicians. The worldwide audience was comprised of both medical professionals and patients and the feedback is of a very professional webinar with excellent content and full and informative discussion.

For anyone who missed the live webinar, the recording is now available to watch here -

www.anginaupdates.org

PATIENT SURVEY LAST DAY TODAY!



Want to get your voice heard?
Take the INOCA Patient Survey today!



Brought to you in collaboration with 2 of the leading voices in Womens Heart Health
Professor Noel Bairey Merz and Professor Martha Gulati



Facebook Access



Non Facebook Access



Facebook Access via -

<https://www.facebook.com/groups/287960691855039>

Non Facebook Access via -

<https://inocainternational.com/contact-form/>

It was so exciting to see the launch of the INOCA Patient Survey! This superb Survey has a total of 51 questions all tailored specifically for INOCA patients and focusing on the impact of living with INOCA conditions. We have been privileged to work in collaboration with 2 of the leading minds in Womens Heart Health - Professor Noel Bairey Merz and Professor Martha Gulati and the level of expertise and professionalism they have brought has been truly exemplary

[Have you completed the survey yet?](#)



INOCA INTERVIEWS



INOCA International were delighted to have the opportunity to record a video interview with Womens Heart Health Expert Professor Martha Gulati in which we discussed INOCA and the newly released U.S. Chest Pain Guidelines.

Professor Gulati was Chair of the Chest Pain Guidelines and humbly says that it was a whole team effort, but what a team effort it was! These are the first ever chest pain guidelines in the U.S. so there was a lot of area to cover!

"Chest pain is one of the most common reasons that people seek medical care. These guidelines were developed for the evaluation of acute or stable chest pain in outpatient and emergency department settings, emphasising the diagnosis of chest pain with an ischaemic etiology. The chest pain guidelines are the first symptom-based guidelines for the ACC & AHA and the first in the U.S. to make recommendations for the evaluation and diagnosis of acute or stable chest pain. The guidelines are endorsed by the American Society of Echocardiography (ASE), American College of Chest Physicians (CHEST), Society for Academic Emergency Medicine (SAEM), Society of Cardiovascular Computed Tomography (SCCT), and Society for Cardiovascular Magnetic Resonance (SCMR).

These guidelines have changed the thinking about how we define coronary artery disease. Previously, most guidelines focused on the diagnosis and identification of obstructive coronary artery disease and on identifying who should and should not go for invasive testing, and ultimately on who should be revascularised.

The guidelines also emphasise the need for optimal medical management for most patients before decisions are made about revascularisation, which is a change from prior guidelines on ischaemic heart disease. The guidelines also redefined coronary artery disease to include both obstructive and non-obstructive coronary artery disease and included a pathway to work up patients with suspected INOCA. The guidelines acknowledge that INOCA is more than one disease process and of course, we need far more information on how to treat patients with INOCA, but hopefully these guidelines will help the healthcare community to start working up patients who have been traditionally ignored when no obstructive CAD has been found.

Another important highlight of the 2021 Chest Pain Guidelines is the focus on women. Specifically getting rid of the nomenclature of describing chest pain as atypical. How can something be atypical when women are 52% of the population? Additionally, more contemporary research has shown that women and men have similar symptoms and 90% of the time, the symptoms include chest pain or chest discomfort or symptoms known to be consistent with reduced blood flow to the heart. Differences in men and women seem to be that women have three or more accompanying symptoms and it may be that the chest discomfort may not be the primary symptom but it is however still often a reported symptom. So an emphasis on listening to our patients, particularly women, needs to be a priority. There is also a focus on shared decision making, so that patients are involved as partners in the decisions made about the type of testing chosen and if testing is needed. Recent work has demonstrated that this approach of engaging our patients reduces unnecessary testing and has no adverse impact on outcomes."

Martha Gulati MD MS FACC FAHA FASPC FESC
President-Elect, American Society for Preventive Cardiology and Chair of the 2021 Chest Pain Guidelines for the ACC & AHA

[The video interview is available to view here - INOCAInternational/INOCA matters](https://www.inocainternational.com/INOCA_matters)

[You can also view The Chest Pain Guidelines https://www.ahajournals.org/doi/10.1161/CIR.00000000001029](https://www.ahajournals.org/doi/10.1161/CIR.00000000001029)

INOCA TRILOGY - PART 3

Treating the Condition

Please Note that The INOCA Trilogy articles have been written by an INOCA patient and therefore expresses a patient perspective.

INOCA is not like traditional Coronary Artery Disease (CAD). In CAD the main coronary arteries can be obstructed or blocked and these can sometimes be treated by clearing the blockages for example with stents. The microvasculature involved in INOCA conditions however cannot be accessed and treated in this way. In CAD the underlying mechanisms have been well understood for many years and there are medications available which have been developed specifically to treat the condition.

While there is now an improved understanding of the underlying mechanisms of INOCA, treating it still remains very challenging. One of the main difficulties is that there are no medications that have been specifically developed for treating INOCA conditions. To date, we are reliant on using cardiac medications that were developed for treating other cardiac conditions and repurposing them. This means that the focus is mostly on reducing the symptoms of patients and improving quality of life.

Of course, the standard lifestyle advice is usually also given, to maintain a healthy weight, not to smoke, to minimise alcohol consumption and to increase exercise. However, this can be very challenging for INOCA patients to achieve because many are simply unable to exercise without an escalation or worsening of symptoms, so the goal of losing weight & increasing exercise is not always realistic, or even possible in the case of INOCA patients. Special INOCA focused Cardiac Rehab programs have been very helpful for some patients but for many others even this is not achievable due to severity of symptoms brought on by exercise.

Due to the experience of INOCA Experts, there is an ever-increasing understanding of the medications that can be used to help reduce the symptoms of INOCA conditions. It is important to recognise that understanding the mechanisms of the condition and diagnosing the condition are essential when considering treatment options. The underlying mechanisms of the various conditions can be very different & this must be taken into account when creating a treatment plan.

The following are just some of the medications currently being prescribed for INOCA conditions. It should be noted that combinations of these medications are sometimes also required and, as each patient can be different, there is often considerable trial & error involved with achieving the optimum treatment plan while also minimising negative side effects to achieve the best possible improvement in quality of life for the patient.

BETA BLOCKERS

It is believed that Beta Blockers can be helpful for patients with an elevated heart rate during rest, or with low level exercise capacity as they can help to reduce heart rate and an increased heart rate can often be a trigger for symptoms in patients with Microvascular Dysfunction. However, Beta Blockers are often not recommended in patients with proven or suspected coronary artery spasm as they can make the conditions worse.

CALCIUM CHANNEL BLOCKERS

Calcium Channel Blockers such as Diltiazem are often prescribed as first-choice treatment for patients with proven or suspected coronary artery spasm, as this drug is known to be effective in both patients with coronary microvascular spasm and coronary artery spasm. A combination of more than one Calcium Channel Blocker can also be effective in some cases.

NICORANDIL

Nicorandil can be used as a first or second line treatment and is sometimes thought to be more effective than long-acting nitrates, since it affects both the vascular smooth muscle cells and nitric oxide production. It also tends to have a more pronounced effect on the small vessels (the microvasculature).

RANAZOLINE

Ranolazine is known as a late sodium channel inhibitor that is reported to be effective in some patients with reduced Coronary Flow Reserve.

NITRATES

Nitrates can be very successful in reducing symptoms in INOCA conditions due to their ability to widen blood vessels. They are available in a number of forms, for example, short acting nitrates, such as an under the tongue spray, which works very quickly and can be very effective for an acute episode. Long-acting nitrate tablets, which can be used to help control symptoms in patients with chronic conditions. Slow-release nitrate patches used up to 10-12 hours a day can also be very effective in helping manage chronic episodes or relapses, especially when placed on the skin in advance for example of stressful situations, meetings, etc. Additionally, patients who are admitted to hospital with a severe acute episode, are sometimes treated with intravenous nitrates (IV) to help to stop /interrupt a bad spasm cycle.

ACE INHIBITORS

Ace Inhibitors are claimed to be helpful for INOCA patients with high blood pressure and can also have a beneficial effect on coronary endothelial function.





TRILOGY PART 3

HEALTH & WELLBEING

STATINS

Statins are sometimes prescribed for INOCA patients with high cholesterol and can also have a beneficial effect on coronary endothelial function.

The above is just a summary of some of the medications currently in use for trying to control symptoms and improve quality of life of INOCA patients. While these medications can at times be very helpful, it often takes some time (months or even years sometimes) of trying different dosages and/or different combinations of these medications to obtain optimum treatment regimes for each patient. It is also important to note that a definitive diagnosis of the specific underlying mechanism of disease can be helpful in speeding up this process. There can also be negative side effects from some of the medications.

While there have been studies to ascertain the effectiveness of these medications, the expertise and experience of the individual INOCA Specialist often has to be relied upon.

Further large-scale studies are certainly required. Specifically designed medications for INOCA conditions still need to be developed and hopefully this is where future research will take us.



8 tips and suggestions to consider for the Christmas period

Savour the moments - disconnect to reconnect

Stay hydrated - alcohol doesn't count!

Spend time just being - give yourself at least 10 minutes a day to just 'be'. Box breathing is amazing and only takes minutes to do. Breathe in for the count of 4, hold for the count of 4 breathe out for the count of 4, hold for the count of four. Do this about 10 times and you will feel the benefits.

Give your digestive system a break too - We all love the wonderful foods and drinks on offer over the festivities, but by doing a little planning, you can add in all the nutritious foods too and still enjoy all the treats.

Conscious consuming - we've all done it, eaten 12 chocolates in one go, or a tub of popcorn whilst watching tv, etc. Still enjoy all these treats but try really tasting what you are eating. You'll find you won't need to eat as much to get the same enjoyment.

Move more - have a dance around the kitchen to Christmas songs. Moving helps to get your lymphatic system working. The lymphatic system gets rid of your body's waste and is constantly on the go. Movement helps the process along. Or even better, get wrapped up warm and go for a stroll if you can.

Practicing daily gratitude - if you start and end your day with thankful thoughts, happiness increases, which also boosts your immune system!

Giving of your time - helping a stranger, doing something for a friend or completing random acts of kindness. Spread kindness wherever you go and kindness will find you too!

Most of all have a wonderful Christmas and may the New Year bring joy, happiness and better health for all!



LOOKING BACK AT JUST SOME OF 2021'S ACHIEVEMENTS

The 2021 INOCA International Patient Survey. We have had the pleasure and privilege of working in collaboration with Professor Noel Bairey Merz and Professor Martha Gulati in bringing together the first ever International INOCA Patient survey designed specifically around the impact of living with INOCA conditions. The survey closes on December 26th, so if you haven't completed it yet, please complete it now as the results from this survey will be influential to the understanding of INOCA conditions worldwide!

Speaking at the COVADIS Summit. What an honour! To be invited to speak at the summit was very humbling indeed, but witnessing the passion these members have, to see patients receiving better care and to see awareness raised, was truly inspiring.

Live INOCA Webinar. It was our great pleasure to participate in the Live INOCA Webinar with Professor Juan-Carlos Kaski and Professor Mario Marzilli, to present the patients perspective on the unmet needs of INOCA and on what patients want from their treating physicians. It was a wonderful opportunity, attracting registered attendees of several hundred from around the world!

Website Videos We are incredibly fortunate to have leading experts from around the world who are all so willing to give their time and expertise to help raise awareness and further education in INOCA conditions. The number of excellent videos on our website is a true testament to the ongoing and invaluable support we continue to receive. The latest videos added are the "**Messages of Hope**" videos referred to in the poster below. They are proving to be extremely popular!

European Heart Journal Article - INOCA International were delighted to be the first INOCA Patient Group to be featured in The European Heart Journal. With a circulation in the hundreds of thousands and an article that was shared to publications in the millions, this was a huge step forward in raising awareness and in bringing INOCA conditions into high level global conversations.

MedShr - We are also delighted to be able to offer a **Doctors Only Private Discussion Group** on MedShr - the App for Doctors with a membership of over 1.7 million! If you are a Doctor and you are not already a member of the INOCA International Private Case Discussion Group, you can join us on this link, free of charge - [MedShr.it/INOCA](https://medshr.it/INOCA) - We look forward to welcoming you!

View our specially recorded
"MESSAGES OF HOPE"



*Seasons Greetings and
Best Wishes for 2022*

from everyone at

INOCA INTERNATIONAL

<https://inocainternational.com/inoca-matters/>

Try to take time out for you this Christmas.

Remember... whilst presents are lovely to give and to receive,
the most important gift of all this Christmas, is YOU!

From everyone at

INOCA International

Please remember, as always, that none of these amazing achievements would have been possible without the dedication, support and encouragement from our superb Medical Advisory Board, from doctors and medical professionals around the world, from INOCA patients and from our very dedicated INOCA International team.

To all of these incredible people who continue to work behind the scenes, completely free of charge, for the benefit of INOCA patients around the world - we say a very sincere and very heartfelt

" THANK YOU SO MUCH FOR EVERYTHING YOU DO! "

**And now, as this is our Christmas Newsletter,
A few fun and light hearted things we hope you all enjoy!**

DID YOU KNOW?



Just a few things you may or may not already know...

1. Atrium' is Latin for entrance hall and 'Ventricle' is Latin for little belly.
2. French physician Rene Laennec (1781-1826) invented the stethoscope when he felt it was inappropriate to place his ear on his female patients' chests
3. Because the heart has its own electrical impulse, it can continue to beat even when separated from the body as long as it has an adequate supply of oxygen.
4. Every day the heart creates enough energy to drive a car around 20 miles!
5. The heart beats around 100,000 times a day.
6. We actually DO have heart strings! They anchor heart valves between upper and lower chambers. When your hear beats, the heartstrings stop your valves turning inside out!
7. There are around 60,000 miles of blood vessels in your body - enough to go around the world - Twice!
8. Ever cell in the human body gets blood from the heart, apart from the cornea which is the clear, protective outer layer of the eye.
9. The heart is fully functional as early as only 3 weeks into a pregnancy
10. One of the reasons that heart cancer is very rare is because heart cells have a limited ability to multiply or self repair!

MOCKTAILS!

MY THOUGHTS AT THIS TIME, IN RHYME

These Mocktails are non alcoholic but please be sure you are not allergic to any of the ingredients before using either of the recipes below

Virgin Mojito

Lime 1, halved and sliced into wedges
Caster sugar 1 tsp
Mint leaves 6, plus extra to garnish.
Apple juice 3-4 tbsp
Almond extract a dash
Sparkling water for topping up

Use the end of a rolling pin to muddle or as I like to say, bash/smash the lime wedges with the sugar in a highball glass. Add the mint leaves and lightly muddle (bash/smash) again.

Fill the glass with ice and pour over the fruit juice and almond extract. Stir, then top up with sparkling water and add a couple of mint leaves to make it look pretty.

Porn star Martini Mocktail

Apple Juice 60ml / 2oz
Passion fruit Juice 15ml / 0.5oz
Lime Juice 15ml / 0.5oz

Half a Passion Fruit and a shot of any type of lemonade Add Ice, apple juice, passion fruit Juice, and lime Juice to your glass. Give it a stir, add half a passion fruit to the top and serve with a shot of lemonade of your choice if you wish to.



Remember to always check first regarding any potential allergies to any of the ingredients before trying any new recipe or idea and before making any changes to your usual diet or to any of your usual routines.

As we approach the end of another pandemic-dominated year
With much doom and gloom, let's have some seasonal cheer
All of you fellow INOCA sufferers
Over this forthcoming Xmas

I hope that you can in some way enjoy the delights
Of the Xmas festive period over the days and nights
With family, friends or whoever
You may go to or have over

May we all receive one gift that we can share
As we've so often this year been in despair
From wherever it comes - maybe Santa Clause
I refer to INOCA somehow being put on pause
Even if for only for a short time - at the very least
Our daily and nightly suffering will have ceased

I want to wish you wonderful men and women
Who have, as always felt and been driven
To work this last year, so tirelessly
In order to ensure that globally
Medical personnel are fully aware of this Cardiac syndrome
Helping us to feel that wherever we are - we are not alone
Yes, I mean you people
At INOCA International

I wish you all a happy, healthy and COVID-19 free
New Year, 2022, and above all else, one that'll be
Filled with good news for our future
When it comes to living with INOCA

Stephen Miller

**Look after yourself this Christmas...
Not just for you, but for all your family too!**





*Season's Greetings
and very best wishes for 2022*

*from all at INOCA
International!*