



**University of California, San Francisco  
Northwestern University**

# MASALA PULSE

**The Official Newsletter of the MASALA Study**  
<http://www.masalastudy.org>



Dear MASALA study participants,

Thank you so much for participating in the study. We have enrolled approximately two-thirds of our planned study sample of 900 people so far. We hope to complete our full study enrollment by the end of 2012. We appreciate your help in spreading the word about this study to your friends and family so that they will consider participating in the remaining months if they are invited in our random sample.

Many of you who had your visit in 2010 or early 2011 have been contacted by our study coordinators for your annual telephone visit. This is how we hope to continue to keep in touch with you and learn about any changes in your health status for the next few years. Please contact our clinic if you have any significant change in your health. This is how we hope to learn how to prevent diseases in the future.

I want to provide you with an update of our plans for future MASALA study visits. We are developing new grant proposals to better understand different aspects of how heart disease and diabetes may develop in South Asians. We are very interested in understanding heart function in South Asians and if this

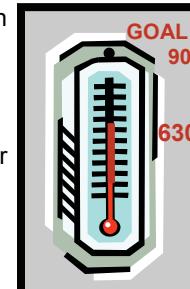


1. **Please call us if you have a major change in your health status, a new address, or a new phone number**, if you were recently in the hospital, or if you underwent a serious outpatient medical test.
2. **Please take part in our phone interviews**. If we don't reach you and we leave a message, please call us back.
3. We sometimes send you forms asking you to give MASALA permission to collect your medical records from hospitals and doctors' offices. **Please quickly return those forms**, so we will be able to get records MASALA needs for its research.

contributes to higher rates of heart failure. Heart function can be measured with an ultrasound test of the heart called an echocardiogram or an MRI. We are also interested in understanding whether sleep disturbances may be contributing to higher rates of high blood pressure and diabetes and eventually heart failure in South Asians. Sleep quality and duration can be measured by wearing a wristwatch and a sleep monitor at home. These are our two leading ideas to advance our understanding of heart disease in South Asians. We will be submitting

these grants to the National Institutes of Health this year in hopes of securing funding by 2014. We will keep you posted on our progress with these grants. We hope that in 2014 we will be able to invite you back for a second clinic visit to do these new non-invasive tests that will provide you with more information about your own health.

Sincerely,  
Alka Kanaya, MD - Principal Investigator, MASALA Study



**STUDY PROGRESS**  
We are in the second year of our study. To date, **630 participants** have enrolled in MASALA. Our goal is to enroll 900 participants!

## The Benefits of Physical Activity

*By: Namratha Kandula, MD, MPH*



Regular physical activity has physical, mental, and emotional benefits. All people, regardless of their age, need to get regular physical activity. It is recommended that all adults get at least 30 minutes or more of moderate-intensity physical activity on most days of the week for a total of 150 minutes every week. Examples of moderate-intensity activity include brisk walking, cycling, or dancing.

Studies show that South Asians are less physically active than many other groups. The sedentary lifestyle of South Asians may be contributing to their higher rates of diabetes and heart disease. It is important for our community to think of ways to become more physically active and to also encourage our children to be more active. (*Continued on page 4*)

## Spotlight on Our Study Staff

**Shweta Srivastava, MBBS**  
**Clinical Research Coordinator**  
**University of California, San Francisco**



I am a medical doctor from India with teaching and research experience. I completed my MBBS degree from UCMS and my post-graduation degree in Obstetrics and Gynecology from Safdarjung Hospital, New Delhi. I came to the United States ten years back. I was an instructor at Everest College for their Medical Assistant Program.

My research career started with an opportunity I got at Stanford Hospital working for an H1N1 Clinical Trial in 2009. I then joined the MASALA study in September 2010 and have enjoyed the experiences I have had with this unique study. I enjoy recruiting and meeting our participants at the clinic visit and welcome them to continue their journey with MASALA.

In my free time, I spend a lot of my time with my two wonderful daughters. I enjoy gardening and last season, I planted roses, sweet peas, tomatoes, squash and cucumbers in our small garden. I also enjoy long walks with my family along Lake Elizabeth in Fremont.

**Swapna Dave, MBBS**  
**Clinical Research Coordinator**  
**Northwestern University**



I am a physician from India and I obtained my Masters in Public Health from the University of Illinois at Chicago. I enjoy working on health related projects associated with chronic preventable diseases and helping spread awareness and understanding about them. My work interests pertain to working in the South Asian community and making a difference in their lives. It gives me immense enjoyment working with the community hand in hand, besides the fact that it helps me attain my personal research goals.

I was born in Mumbai, India and moved to Chicago 11 years ago with my husband who is a practicing pharmacist. Although notoriously famous by its nick name the “windy city”

and being known for its harsh winters, I still love living in Chicago because of its diversity in all phases of life. I have a daughter who is now 6 years old and goes to kindergarten and one of the most amazing things about her is that she can speak Hindi, Marathi and Gujarati languages in addition to English.

Recently I started learning vocal Hindustani classical music and discovered a new passion for music. Music helps me relax with the added advantage of spending time creatively with my daughter who practices with me since she is also learning music. My hobbies are to travel and see new places, garden in the summer and to spend time with my family.



### Did You Know?

Before we began this study, we conducted a smaller pilot study of 150 Asian Indian men and women in the Bay Area from 2006-2010. Fortunately, most of our pilot study participants have re-enrolled in the current MASALA study.

Here are some of the things we have learned from the data gathered on our first 150 participants:

- Asian Indians have many of the well-known risk factors for heart disease like diabetes and high blood pressure, much more in excess compared to other ethnic groups in the U.S.
- The average body mass index (BMI) was  $26 \text{ kg/m}^2$  (overweight), but the actual body fat measured by a whole body DEXA test was much higher than expected (41% for women and 30% for men). There was more fat in the liver and fat around the abdominal organs (visceral fat) in the Indians in our study than in other ethnic groups. Just focusing on body weight doesn't give a complete picture of how much actual fat is inside the body. This excess body fat in the wrong places (liver and visceral area) was highly associated with diabetes risk.
- The average Indian consumed about 1,900 kcal/day. 42% ate a vegetarian diet and 58% were non-vegetarian. The average carbohydrate content in the diet was 52%, 14% protein, and 35% fat - very similar to the average American diet. Those who consumed animal protein (meat-eaters) had a higher risk of diabetes than those who did not.

Visit our [www.masalastudy.org](http://www.masalastudy.org) website and click on the Health Resources link to read our published pilot study results. We will continue to update that webpage with our newest study results.

## Cracked Wheat Pulav with Vegetables (Daliya and Veggie Pulav)

### Ingredients:

1 cup cracked wheat (daliya)  
 $\frac{1}{4}$  tbsp oil for roasting  
 $\frac{2}{3}$  tbsp oil for cooking veggies  
 $\frac{2}{3}$  cup water  
 $\frac{1}{2}$  tsp cumin seeds (jeera)  
 $\frac{1}{2}$  tsp small mustard seeds (raii)  
1  $\frac{1}{2}$  tsp salt  
 $\frac{1}{2}$  tsp garam masala  
 $\frac{1}{4}$  tsp red chilli powder (lal mirch)  
 $\frac{1}{2}$  cup cubed onions  
1 cup cauliflower cut in 1" pieces  
 $\frac{3}{4}$  cup of  $\frac{1}{2}$ " cubed zucchini  
1/3 cup of  $\frac{1}{2}$ " cubed green bell pepper  
1/3 cup of  $\frac{1}{2}$ " cubed red bell pepper  
1 cup frozen mixed vegetables, thawed  
 $\frac{3}{4}$  cup chopped ripe tomatoes  
 $\frac{1}{2}$  tsp lemon juice  
 $\frac{1}{4}$  cup chopped cilantro



Using a 4 quart pan on medium heat, add cracked wheat and  $\frac{1}{4}$  tbsp oil. Roast it for 5 minutes while stirring constantly. Now add water and cover the pan partially. Cook it for about 10-15 minutes till cracked wheat is cooked and all the water is soaked up. Open the lid and let it cool down.

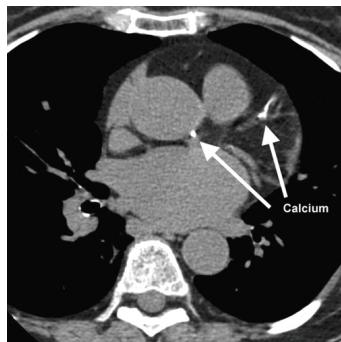
In a big nonstick pan add 2 tablespoons oil on medium heat.

In 2 minutes add cumin seeds and mustard seeds. As they start to crack add onions and cook for 4 minutes, stirring often. Then add the cauliflower and cook for 4 minutes. Next add zucchini and cook for 4 minutes stirring often. After this add the bell peppers, frozen mixed vegetables and tomatoes and cook all the veggies together for 5 minutes. Now add cooked cracked wheat, salt, red pepper and garam masala. Mix everything with light strokes so that it remains fluffy. Garnish with chopped cilantro. Serve it hot with plain yogurt or with any Raita.

*Recipe Contribution By: MASALA Study Participant, Palo Alto, CA*

## Coronary Artery Calcium

By: Alka Kanaya, MD



MASALA is the first large study to report on coronary artery calcium (CAC) scores in South Asians. Atherosclerosis, which is the hardening of arteries, is caused by plaques that build up in the arteries. These plaques contain calcium, and the amount of calcium buildup in the arteries is a measure of atherosclerosis. Over time,

these plaques can harden and narrow the arteries, leading to a heart attack or stroke. From other large studies like MESA, we know that the CAC score can be helpful in predicting those who are at highest risk of developing future heart disease. But we do not know if this will be true in South Asians too.

In the MASALA study, we are trying to determine whether South Asians' CAC scores can predict those who will develop heart disease so that in the future, we will better target people who will benefit from more aggressive risk factor control. With the unique MASALA data, we will be able to assess how much calcium is found in different age groups of South Asian men and women. Eventually, we will use the MASALA data as norms for CAC comparisons for South Asians. Because we currently have no norms for the South Asian population, we compare the CAC scores that you receive after your MASALA

study visit to the Whites in the MESA study.

Regardless of gender or race, the older we are, the more likely we are to develop new calcium in our arteries: each year, less than 5% of people under 50 develop new calcium, compared to 12% of people 80 and older. Besides age, there are several other factors that influence the development of new calcium, such as being overweight or obese, having higher blood pressure or cholesterol, diabetes, family history of heart attack, higher creatinine (a blood test for kidney function), and inflammation.

The information provided by the CAC score is most helpful for people who are at intermediate risk of heart disease based on the other risk factors (like smoking, high LDL-cholesterol, low-HDL cholesterol, high blood pressure, and diabetes). Some cardiology experts have recommended that patients who are at intermediate risk for heart disease based on their other risk factors, should have their CAC score measured because a high CAC score ( $>400$ ) may warrant more aggressive treatment of their risk factors, such as cholesterol-lowering with a statin medication.

If your CAC score was high for your age as we reported it to you, or if it was greater than 400, please discuss your CAC results with your doctor to make sure that your cholesterol, blood pressure, and blood sugar are well controlled. If you smoke, discuss ways you can quit with your doctor. Prevention is the key to good health!

UCSF and Northwestern University

Mediators of Atherosclerosis in South Asians Living in America (MASALA) Study

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We gratefully accept donations to support our work. To donate, visit our study website at [www.masalastudy.org](http://www.masalastudy.org) and click on the “Support Us” link at the bottom of the “About the Study” page.

## The Benefits of Physical Activity (*continued from page 1*)



### Tips for Getting to 150

150 minutes each week may sound like a lot, but you don't have to do it all at once. Break it up into smaller, more manageable chunks during the day. All that matters is that you're doing your activity for at least 10 minutes at a time with moderate or vigorous effort.

Try a 10-minute brisk walk, 3 times a day, 5 days a week. This will help you reach your goal of 150 minutes.

There are countless ways to enjoy physical activity. You can even get your family involved. Here are a few ideas to get you started:

- Instead of watching television after dinner, go for a walk.
- Play tag, swim, toss a ball, jump rope, hula-hoop, and dance to your favorite music. It doesn't have to be sports—just get your family moving!
- Race with your kids. When is the last time you ran fast for 20-30 seconds?
- Take the stairs whenever you can.
- Celebrate special occasions—like birthdays or anniversaries—with something active, such as a hike or playing a game at the park.
- Get the whole family involved in household chores like vacuuming and yard work.
- Walk instead of drive whenever you can. If you have to drive, find a spot at the far end of the parking lot and walk to where you're going.
- Park farther away and count with your children the number of steps from the car to your destination. Write it down and see if you can park even farther away on your next stop.
- Get off the bus a stop earlier than usual and walk the rest of the way
- Limit the amount of time at home that you and your family spend in front of a computer or television to no more than 1-2 hours a day. Watching TV may take away from the time you can spend doing physical activities.
- When you are watching television, get up and move during commercial breaks.
- When you are at work, make sure to get up every 30 minutes and stand or go get some water.

Many people say, “I do not **have** the time to do any exercise.” But the truth is that many people do not **make** the time to exercise. We can set the right example to our families and communities by making physical activity a priority in our own lives.