



University of California, San Francisco  
Northwestern University

# MASALA PULSE

The Official Newsletter of the MASALA Study

<http://www.masalastudy.org>



Dear MASALA Participants,

Thank you for participating in the MASALA study. We enjoyed meeting so many of you at the MASALA community forums this past fall. Your interest and enthusiasm in our research efforts was inspirational! For the past 12 months, the dedicated MASALA staff and investigators have been busy analyzing data and preparing

publications and presentations. We have now published 3 papers from the results of the MASALA study and have included a brief description of the results from these papers in this newsletter. Full copies of each published article can be found on our website ([masalastudy.org](http://www.masalastudy.org)) under the Study News page. Several more papers will be coming out soon.

We are also very happy to share some good news with you. We recently received new grant funding from the National Institutes of Health to continue the MASALA study cohort and to conduct a second study visit. The purpose of this second visit will be to understand more about how social relationships, such as family, friends, and community can influence health behaviors and cardiovascular health. We plan to conduct the second study visit at a location convenient for you, such as a place close to your work or

home. The visit will consist of an interview about MASALA participants' social networks and we will also be re-measuring weight, waist, and blood pressure. We plan to begin contacting MASALA participants in September 2014 for this new phase of the study.

We hope that each of you will participate in the second MASALA study visit- this next study visit will lead to important new information on how social and cultural factors play an important role in health. We are extremely honored to receive continued grant support from the National Institutes of Health so that we can continue to build upon the important information we have already learned from the MASALA study.

As always, we will continue to follow-up with you on a yearly basis to get updated information on your health. Please contact us with any updates on your health. We truly appreciate your time and willingness to continue to remain engaged in the MASALA study. Together, we will advance knowledge about the causes of heart disease and other health problems in the South Asian community and together, we will find the solutions. We hope to see you at our second study visit examination in 2014!

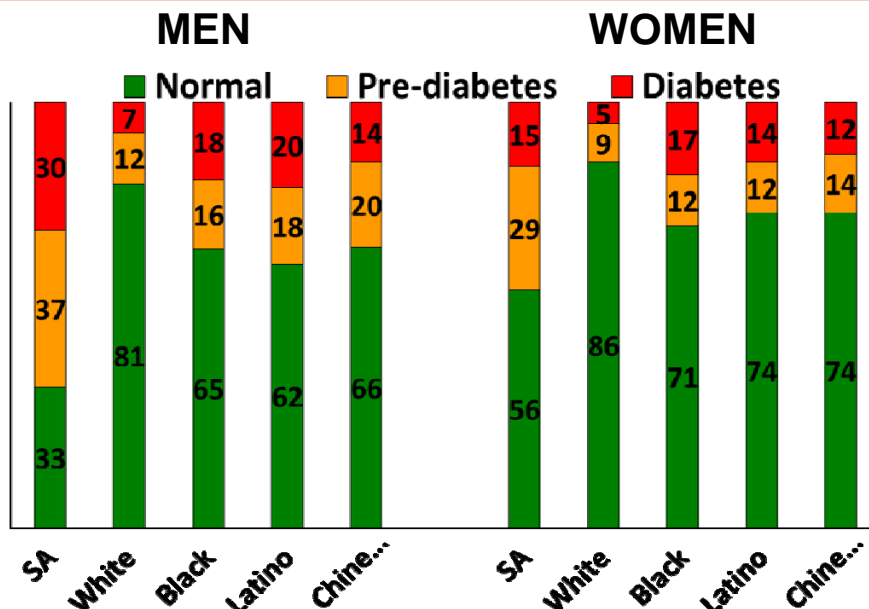
Best wishes,  
Namratha Kandula, MD, MPH  
MASALA—Northwestern University Principal Investigator

## Why do South Asians have more diabetes than other ethnic groups?

The MASALA study has found that South Asian men and women have higher rates of type 2 diabetes than Whites, African Americans, Latinos and Chinese Americans. The figure to the right shows the percent of men (the 5 bars on the left) and women (the 5 bars on the right) with diabetes (in red) and pre-diabetes (in orange).

After accounting for differences in age, South Asian men had the highest prevalence of diabetes (30%) compared to all men and women. The prevalence of diabetes in South Asian women (15%) was higher than in White and Chinese women, but similar to African American and Latino women.

Importantly, we have also started to find some explanations for the higher diabetes risk in South Asians. The MASALA study shows that South Asians make less insulin and that their bodies cannot properly use the insulin they do have (insulin resistance). These findings can help lead to better diabetes prevention and treatment for the South Asian community.



## Manage your stress

Stress is a part of life and long standing stress may have negative effects on your health. Below are a few strategies that can help you manage your stress effectively and maintain your health.

1. Take some time for yourself from your busy daily routines. Lay with your eyes closed in bed or on a yoga mat and put on your favorite soothing music. You will be surprised by how rejuvenating this 10 minute break can be for you.
2. In stressful situations we usually do not focus on ourselves and neglect our diet and exercise but remember if you want to face the situation you need to take care of yourself. Make

3. Try to get enough rest and sleep. A sure you eat a healthy, well-balanced diet and find some time for exercise. Even a quick 10 minute walk will help.



4. Do activities that you enjoy. E.g. Play a game of bingo, go for a movie with your friends. This will help take your mind off from the stressful situation.
5. Talk to your family members and friends whom you trust about your problem. They may have faced a similar situation and may offer help.
6. Last but not the least, practice positive thinking. E.g. If your friend is not returning your call, instead of focusing on the negative facts (e.g. Is he mad at me? Did I say something to him? etc.) focus on the positive facts (e.g. Maybe he is busy, or his phone is not working, etc.).

## Vegetable and Whole Grain Muthia

### Ingredients

- 1 cup grated bottle gourd or zucchini or carrots
- 1 cup chopped spinach, fresh or frozen
- 2 tbsp finely chopped onions (optional)
- 1 cup whole grain flour (wheat, bajra, jowar etc)
- ½ cup quinoa, dry, uncooked
- ½ cup chick pea flour
- 2 tsp grated ginger
- 1 tsp green chili paste
- ½ tsp turmeric powder
- ½ tsp cumin seeds
- 1 tsp lemon juice
- ½ tsp sugar
- salt to taste
- 2 tbsp finely chopped coriander (dhania)

### Ingredients for Tadka (optional)

- 2 tsp oil
- 1/2 tsp mustard seeds (rai / sarson)
- 1 tsp sesame seeds (til)
- 1/4 tsp asafoetida (hing)

### Method

- Squeeze out excess water from the grated bottle gourd, spinach and onions and keep the liquid aside to knead into the dough if required.
- Combine the bottle gourd, onions, spinach, whole grain flour, quinoa, chick pea flour, ginger, green chilli paste, turmeric powder, cumin seeds, lemon juice, sugar, and salt in a bowl. Mix well. Knead into a soft dough adding water if required (use the extra liquid from the vegetables for kneading).
- Apply a few drops of oil on your hands and divide the mixture into 4 equal portions.
- Shape each portion into a cylindrical roll approximately 6" (150 mm) length and 1" (25 mm) in diameter.
- Arrange the rolls on a greased sieve and steam in a steamer for 20 to 25 minutes.
- Remove, cool slightly and cut into 1/2" (12 mm) slices and enjoy with your favorite chutney or yogurt.
- Serve immediately garnished with coriander.

### Optional Tadka or tempering

- Let the muthia cool down for about 10 minutes.
- For the tempering/tadka, heat about 2 tsp of oil in a non-stick kadhai and add the mustard seeds.
- When the seeds crackle, add the sesame seeds and asafoetida and sauté on a medium flame for a few seconds.
- Add the muthia pieces and sauté on a medium flame for 2 to 3 minutes or till they turn light brown in color and crisp.

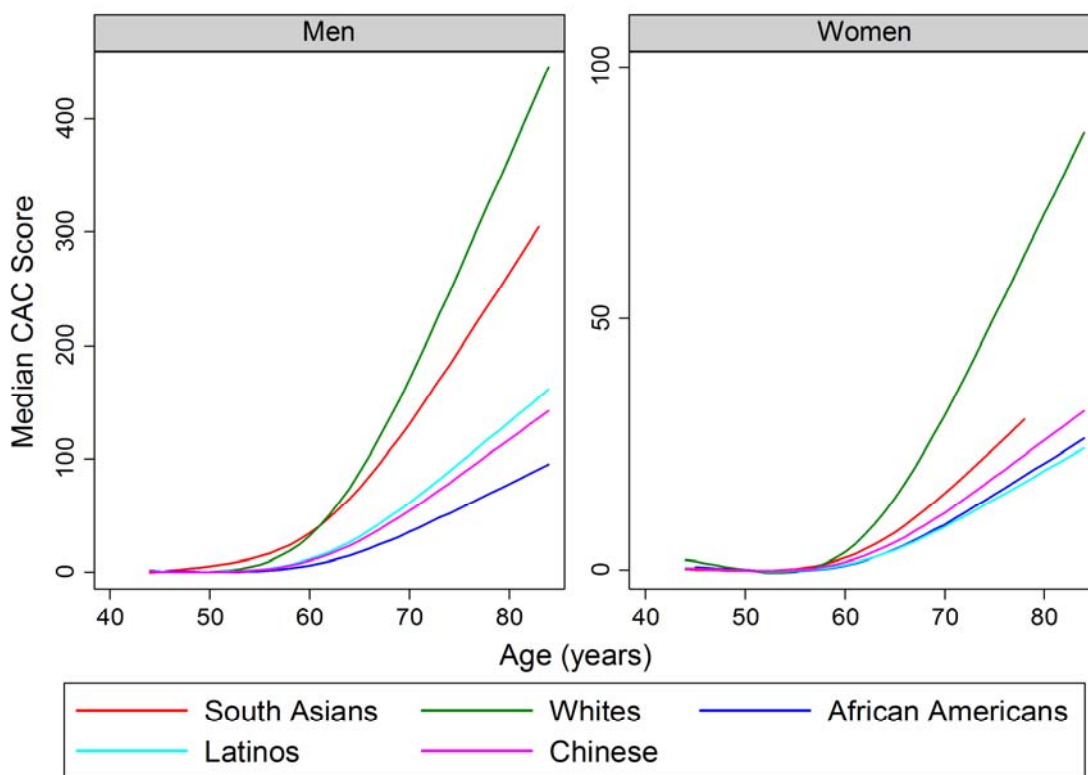


## How does the Coronary Artery Calcium in South Asians compare to other race/ethnic groups?

One of the major goals of the MASALA study was to establish the amount of coronary artery calcium that South Asian men and women have by age group. The blood vessels in the heart can develop plaque and blockages over time. These plaques can be measured by looking at the amount of calcium deposits in the blood vessels and can help doctors identify people who might be at risk for developing heart attacks in the future. Up until now, there have been no studies that have determined if the coronary calcium score can predict heart attacks in South Asians. This is a major goal of our study in future years.

At this stage, we have been able to compare the average calcium score in South Asian men and women compared to Whites, African Americans, Latinos and Chinese Americans. The figure to the right shows average amount of calcium in the blood vessels plaques. The amount of calcium in the blood vessels of South Asian is shown by the red lines. The MASALA study shows that average calcium scores (called CAC score) were similar for South Asian men and White men, but South Asian men has much higher calcium scores than African

American, Latino and Chinese men. South Asian women had similar calcium scores as other women before age 70; but after age 70, South Asian women appear to have higher calcium scores than many other groups. These data have established what the average calcium scores are in South Asians at different



ages and can help doctors and patients know if an individual's calcium score is higher or lower than average. If it is higher than average, it is important for patients and doctors to talk about what can be done to reduce the risk of a future heart attack.



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.

**To contact the UCSF clinic, call 415-236-2725**

**To contact the Northwestern clinic, call 312-841-1967**

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