FOOD ON THE STOVE™

MORE FOOD LESS MEDICINE REPORT

A 4-WEEK COMPREHENSIVE STUDY WITH MEALS INCLUDED

A FOOD ON THE STOVE INITIATIVE

LIFE SCAN Wellness Centers

Medek Health Systems

Michele Johnson MD

More Food. Less Medicine.

PURPOSE

The purpose this program is to restore the health of firefighters utilizing food as medicine with a long-term goal of providing healthy meal options beyond the firehouse, through a meal planning service. We plan to work closely with fire departments in the Washington DC area to offer this service to members that are placed off-duty due to health concerns.

A Harvard study published in the New England Journal of Medicine showed that heart disease kills more on-duty firefighters than any other cause. Harvard researcher Stefanos N. Kales, MD, MPH, and team analyzed data on all firefighter deaths between 1994 and 2004, except those linked to the 9/11 terrorist attacks. The researchers found that, compared with when they perform nonemergency duties:

- Firefighters are 12 to 136 times more likely to die of heart disease when putting out a fire.
- Firefighters are 3 to 14 times more likely to die of heart disease while responding to an alarm.
- Firefighters are 2 to 10.5 times more likely to die of heart disease while returning from an alarm.
- Firefighters are 3 to 7 times more likely to die of heart disease during physical training.

Published in the March 22, 2007, issue of The New England Journal of Medicine.

The program will focus on education and accountability while providing health promoting food. According to the World Health Organization, 80% of heart disease, stroke, and type 2 diabetes—and 40% of cancer—could be prevented, primarily with improvements to diet and other lifestyle interventions.

OVERVIEW

A 4-week Comprehensive Program with meals provided

INITIAL EVALUATION: Participants that were selected for this program were identified as high risk and willingly volunteered to join this study. All participants signed a consent to participate in the program and provided a signed release for the physician to discuss medical care/treatment with their primary care physician. The lead physician of the study, Dr. Michele Johnson, reviewed medical history including past medical/surgical history, medications, current nutrition plan and labs during a telehealth visit. In addition, the participants health goals were discussed, and they were provided with an overview of the program. All participants completed initial lab work including lipid and chemistry panel at LabCorp via our partners at LifeScan Wellness Center. Following the initial evaluation, the participants received a remote monitoring package provided by Medek Health, delivered daily glucose/blood pressure/weight information to the physician.

DATA POINTS:

- Initial blood pressure and pulse
- Hemoglobin A1c
- Glucometer *if needed
- Lipid & Chemistry Panel
- Weight

WEEKLY TELEHEALTH EVALUATION: Weekly review of medications, food intake and blood sugar/blood pressure/weight log with physician took place every Friday. During this weekly telehealth appointment, participants discussed challenges and goals for upcoming week. Recommendations for physical activity, nutrition were discussed. During the weekly visit with Dr. Johnson, participants reviewed meals prepared by Food on the Stove for preferred taste and/or allergies. If medications needed to be adjusted, Dr. Johnson coordinated with participants primary care provider. (Please note: If needed, Dr. Johnson would contact participants prior to weekly appointment if data from the remote monitoring was concerning.)

DISCHARGE EVALUATION: After completing the 4-week program days of Food on the Stove prepared meals, the participant repeated initial data points followed by an appointment with Physician (Dr. Johnson). During the discharge appointment, Dr. Johnson reviewed the lab results and provided recommendations for the participant about transitioning to maintenance.

All visits were HIPPA compliant telehealth video or phone.

PROGRAM GOAL

While we know that not every medical condition can be quickly resolved with a simple diet change, our goal is to expand this program to multiple fire departments and work closely with them to offer this as a service for members who are placed off-duty for health reasons. It is our belief that our program will allow members to be placed back to full duty faster, while also giving them the tools they need to sustain a healthier lifestyle. The program will also allow departments to “back-fill” positions less frequently and for shorter durations and potentially lower healthcare premiums.

PROGRAM RESULTS

During the month of February, we monitored 6 DC Firefighters and provided them meals daily. The foundation of this study was to get the participants to focus on portion control and increasing their leafy green intake via salads. We also gave them the following recommendations:

- Eliminate sugary drinks like sodas, sport beverages, alcohol, and artificially sweetened juices.
- Drink a minimum of 4 16oz bottles of water daily
- Do 30 minutes of cardio a minimum of 3-5 X a week.
- If you find yourself hungry in between meals, eat fruit, salad, or trail mix.
- Cut the TV off and go to bed earlier than normal
- Try to eliminate sweets during this study

PROGRAM HIGHLIGHTS:

*Average Weight Loss in 30 days **11.23lbs** with range from 3-20lbs
*Average Total Cholesterol dropped **50.5 points** in 30 days without medication
*Average increase in testosterone **148.8ng/dl** in 30 days without medication

PARTICIPANT #1	RESULTS
Age: 42 Sex: Female	Total cholesterol drop: **46 points** Weight loss: **7.4lbs**

PARTICIPANT #2	RESULTS
Age: 47 Sex: Male	Total cholesterol drop: **90 point** weight loss: **13lbs**

PARTICIPANT #3	RESULTS
Age: 43 Sex: Male	Total cholesterol drop: **63 points** Weight loss: **20lbs**

PARTICIPANT #4	RESULTS
Age: 40 Sex: Male	Total cholesterol drop: **72 points** Weight loss: **14lbs**

PARTICIPANT #5	RESULTS
Age: 41 Sex: Male	Total cholesterol drop: **11 points** Weight loss: **3lbs**

PARTICIPANT #6	RESULTS
Age: 42 Sex: Male	Total cholesterol drop: **21 points** Weight loss: **10lbs**

Dr. Johnson's Report:

In this study six full duty active firefighters were provided three meals a day for thirty days. The study participants were provided a variety foods including chicken, salmon, steak, oatmeal and lentils but continued to increase their intake of leafy greens vegetables. The average decrease in thirty days for total cholesterol was 20.35% for each participant . The average percentage drop in triglycerides was 29.24% and the average LDL was 21.23 %. Each participant's Hemoglobin A1c decreased during the 30 days.

Note participant #6 is currently treated with a statin but continued to have greater reduction in LDL level. Considering IMPROVE-IT trial, which demonstrated incremental benefit with the addition of a non statin medication , the addition of heart healthy foods in the participant also demonstrated a decrease in LDL with a statin. Participant #2 noted a 29.1% decrease in his LDL comparable to some low dose statin medication.

The limitations of the study include a small sample size and same meals for each participant without accounting for medical history, activity level or sex. Providing the same meals for all participants may have increased the portion sizes/ nutrition content for our sole female participant resulting in the increase in triglycerides. Participants were instructed to continue follow up with their Primary Care Physician. Recommendations include addition research to assess maintenance and follow up on Hemoglobin A 1c after three months.

Arteriosclerosis, Thrombosis, and Vascular Biology Volume 15, Issue 5, May 1995; Pages 678-682
https://doi.org/10.1161/01.ATV.15.5.678
Reduction of LDL Cholesterol by 25% to 60% in Patients With Primary Hypercholesterolemia by Atorvastatin, a New HMG-CoA Reductase Inhibitor

ABOUT FOOD ON THE STOVE

Food on the Stove is a firefighter founded 501c3 nonprofit organization that provides tools and resources to help firefighters live a healthier lifestyle through enhanced nutrition and exercise. While firefighters are committed to the meaningful work of protecting life, property, and the environment in the districts they serve, Food on the Stove is dedicated to giving back to these expert rescuers by addressing one of the leading causes of death among firefighters--heart disease. In addition, firefighting is the only occupation that requires employees to cook all 3 meals while at work. We believe that by educating our local heroes about healthier food options and exercise, we will be able to lower the number of firefighters who die from heart disease, while impacting the health of their families as well.

ABOUT
DR. MICHELE JOHNSON

Dr. Michele Johnson received her Bachelor of Science degree and Medical degree from Howard University in Washington DC where she completed a six-year combined BS/MD program. She completed her residency training in physical medicine and rehabilitation at Rutgers- Robert Wood Johnson Medical School in New Jersey followed by fellowship training in Interventional Spine at Virginia Commonwealth University. She holds board certifications in Physical Medicine & Rehabilitation, Pain Management, Obesity Medicine and Lifestyle Medicine. She believes in a comprehensive approach to patient care and has completed medical acupuncture training with Harvard University. Dr. Michele Johnson is a native of the DC Metropolitan area and strives to help people with chronic diseases decrease medication and improve their health by using simple foods

CONTACT **US**

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