

# Fit News

The Ohio State University Faculty & Staff Fitness Program

February, 2015

## Improving Confidence & Gaining Proficiency in Olympic Lifts: By Rich LaFountain and Ciaran Fairman

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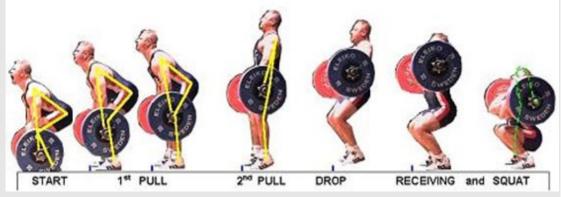
### The Clean

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Olympic weightlifting has increased exponentially in popularity over the past 10-15 years with the advent of training philosophies like Crossfit. Olympic weightlifting is an explosive athletic activity in which you utilize multi-joint approach to execute specific movements training the entire body as you move large quantities of weight through space. As such, there are some key elements that must be realized and addressed in order to grow confidence and proficiency for safe and effective Olympic weightlifting.

#### Focus: The Clean

The clean is a great movement to train both upper and lower body strength in addition to explosive power. This is fundamental Olympic lift that can provide you with the raw materials/skill to progress to more technically driven "finesse" lifts.



#### Clean Variations and Terminology

Power Clean – Weight starts from floor and is cleaned and recovered to standing position

Hang Clean – Weight starts and lift initiated at mid-thigh position great for practice in improving 2<sup>nd</sup> pull & drop speed)

Clean and Press – Weight is cleaned, after recovery to full standing position, a slight dip (knee/hip flexion) followed by drive of bar to full lock out in overhead position

Edited by Emily R Martini, MS

Clean and Jerk - Weight is cleaned, after recovery to full standing position, a slight dip followed by drive of the bar to full lock out in overhead position as lifter drops underneath bar in a squat or split squat stance

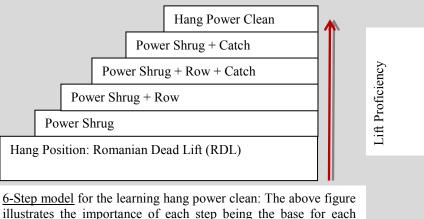
### Main Barriers to Entry:

- 1. Proficiency in Deadlift & Squat
- 2. Proficiency in Front Rack Position & Front Squat
- 3. Shoulder, Elbow, Wrist, Hip, and Ankle Mobility...continued page 2

#### Precursors to the lift:

To ensure proficiency of the clean, or any of it's variations, there are certain components of the lift that need to be mastered prior to progressing the full movement.

It's recommend that the catch (i.e. front squat) and the hang position (Romanian deadlift) be the focus of your training to improve the proficiency of the overall lift. From there, you can put all the pieces of the puzzle together to ensure and safe and efficient movement. Mastering movements that target hip hinge (kettlebell swings, kneeling squats, cable pull throughs etc.), will develop neural adaptations and improve the translation of proper technique to the lift. Consider the 6-step model below for steps to gaining proficiency in the <a href="https://example.com/hangelean">https://example.com/hangelean</a>:



The RDL and FS exercises reinforce proper start and end position for the hang clean, and aid in proper execution when combining su parts to achieve entire fluid movement.

#### Putting it together for the full Movement:

subsequent step toward proficiency

- Start Weight on the floor bar should be just above the forefoot/toe box of your shoe. Grasp the bar as if in the bottom of the deadlift position. Back should be straight, shoulders actively squeezing shoulder blades together, hips slightly above knee level, arms straight elbows just outside the knees.
- 1<sup>st</sup> Pull The 1<sup>st</sup> pull of a clean is virtually equivalent to a deadlift from the floor to mid-thigh. Keeping the weight on your heels you will drive through your legs and hips keeping, the bar close to your shins, in a vertical plane of motion until you pass knee level. It is important to move knees and hips together so as not to put unnecessary pressure on the low back. Keep your arms straight and move more smoothly and slow during the 1<sup>st</sup> pull.
- Transition Movement of bar from mid-thigh to hip crease. This is the point at which you begin to push your knees forward underneath the bar and your back will become vertical. It is important to keep weight on your heels and maintain a slight bend in knees throughout the transition. A good transition leads to more successful efficient lifting of heavier weights down the road.
- 2<sup>nd</sup> Pull The 2<sup>nd</sup> pull of a clean can be thought of as a power or "jump" shrug. This is the most explosive component of this movement. This will involve a "triple extension" of the hips, knees, and ankles (jump) and a shrug of the weight at the shoulders. As the bar comes off of your hips with your 2<sup>nd</sup> pull you must keep the bar as close to your body/torso as possible. Do not cut this movement off early and try to dive to get under the weight for your catch.
- Drop, Catch, Recovery During this final portion of the movement you will actively "pull" or "shrug" yourself under the bar while rotating your elbows out in front of you into the front rack position before catching in a front squat position and standing up to recovery. Keep in mind most people do not "pull" themselves down under the bar and allow gravity to do this for them you will find yourself out of position if you do this. Finally, if you are scared or nervous of getting hit in the face with the bar when you drop or if the bar consistently is crashing down on-top of you during your catch then your are likely not keeping the bar close enough to you during the transition and 2<sup>nd</sup> pull. The bar should never get any higher than your collar bone during The Clean.

#### Resources:

Barbell Shrugged Technique WOD - http://daily.barbellshrugged.com/category/barbell-shrugged/

Barbell Shrugged Olympic Weightlifting Guide - <a href="http://flightguide.viprespond.com/">http://flightguide.viprespond.com/</a>

Elitefts. Deadlift Manual. By: Dave Tate - http://www.elitefts.com/elitefts-deadlift-manual.html

California Strength – Clean Part 1-3 - https://www.youtube.com/watch?v=mEyoH5FV03s



# Oatmeal Flax Pizza with Sweet Avocado Cream

<u> Author: Lauren Blake</u>

Serves: 3-4

Ingredients:

Oatmeal Flax Crust

½ cup rolled oats

½ cup unsweetened vanilla almond milk

1 Tbsp unsweetened shredded coconut

1 Tbsp ground flaxseed

2 tsp ground cinnamon

Sweet Avocado Cream

1 ripe avocado

1 Tbsp maple syrup

2 tsp lemon juice

1 Tbsp water

*Instructions:* 

Preheat the oven to 400 degrees (F). Prepare baking sheet by spraying it with nonstick cooking spray.

Combine all ingredients for oatmeal flax crust (oats, almond milk, shredded coconut, flaxseed, cinnamon) in a food processor and pulse until well combined.

Spread mixture of baking sheet and bake for 10 minutes.

While crust is cooling, prepare sweet avocado cream by blending all ingredients (avocado, maple syrup, lemon juice, water) in a food processor and blend until smooth.

Once crust is cooled, evenly spread avocado cream on crust. Top with diced fruit of your choice. Suggested toppings include blueberries, strawberries, banana and blackberries.

Enjoy!

For more recipes, please visit Lauren's Blog at http://www.wholelivinglauren.com/



### Lauren Blake, RD, LDN

Registered Dietitian, Wellness and Health Consultant, and whole food loving enthusiast with a passion for healthy cooking and balanced living.



# Eggs and Vascular Health: Current Research at Ohio State Kevin E. Schill, MS

Just this past week, news came out that the US government may be reversing its stance on cholesterol intake in the diet. For 30 years Americans have been told to avoid dietary cholesterol and to eat less than 300 milligrams a day, because it was thought that dietary cholesterol strongly influences blood cholesterol levels. Only about 20% of the body's cholesterol is determined by diet,





and genetics plays a large role in a person's cholesterol level. A lot of the cholesterol that we actually have in our blood comes from what we produce in the liver, and how efficiently we process or eliminate it.

Cardiovascular disease (CVD) is the leading cause of mortality in the US, causing ~800,000 deaths annually. Because circulating cholesterol increases CVD risk, this has triggered flawed guidelines to restrict dietary cholesterol, including limiting egg consumption. Current egg consumption guidelines recommend less than four eggs per week. This misguided "egg-phobia" has been routinely challenged by large-scale clinical studies that fail to correlate eggs with CVD risk. Some clinical studies actually show that eggs promote a more favorable, anti-atherogenic lipid profile.

The lab of Dr. Richard Bruno (Human Nutrition) is currently performing research examining how acute ingestion of eggs improves vascular health, and reduces CVD risk. Eggs contain antioxidant, and vasoactive compounds that may improve the ability of your blood vessels to function, when eaten acutely. Dr. Bruno is actively recruiting individuals for this study.

## You may be eligible if you are:

- -An overweight male, between the ages of 18 and 50 years old
- -A nonsmoker

### You are not eligible for this study if you:

- -Have allergies or aversions to eggs
- -Consume more than 3 alcoholic drinks per day
- -Exercise more than 7 hours per week
- -Take any medications to manage high cholesterol, inflammation, or metabolism
- -Have a history of CVD or gastrointestinal disorders.

There is no cost for taking part in this study, and participants will be compensated up to \$\frac{\\$300}{\}\$ for completing the study, and cost of parking will be provided. Please email <a href="mailto:osueggs@gmail.com">osueggs@gmail.com</a> for more information. You can play a part in changing federal guidelines on egg consumption, and increasing the knowledge base we have on how eggs affect health and CVD.



# **Up Close and Personal with Marilyn Miller**

By: LaKeesha Leonard



Meet Marilyn Miller. Marilyn has been a member of FSFP for only a month, but has been a steady and energetic presence during the early morning sessions since joining. Marilyn has been active most of her life, but the past few years had found herself stuck in a rut of inconsistency. Most of her physical activity had always been done with a buddy, but that changed when she started working full time. Marilyn said, "I was losing strength, flexibility and tone. I felt like I couldn't do the things I wanted to do." When asked why she joined FSFP, she replied "I knew I needed to get back into a routine and be held accountable." Through working with our program, especially with taking part in the morning group circuits, Marilyn has found the accountability and direction she needs. Though it's only been a month, she has already noticed an increase in strength and flexibility. Her exercise philosophy is "It's not what you do, but the consistency of it. Never stop moving!" To keep moving on the weekends, she walks a 4-5 mile loop in her neighborhood. She has a new found motivation and determination and there's no turning back! Look out goals, here she comes!

Do you have someone you'd like to submit for an up close and personal? Do you think there's an FSFP member that has made great improvements worthy of the newsletter? Email your suggestions to Emily at martini.36@osu.edu



# **Expert Corner: Sugar Intake Guidelines**

By: Dr. Steven T. Devor, Ph.D., FACSM

Contributed by Dr. Steven T. Devor – Director of Performance Physiology for MIT and OhioHealth, and Associate Professor of Exercise Physiology, Department of Human Sciences, and Department of Physiology and Cell Biology, The Ohio State University

In early March of 2014 the World Health Organization (WHO) released new guidelines that recommend an individuals daily intake of sugar should exceed no more than 5% of overall daily caloric intake. The previous recommendation from the WHO was released in 2002 and at that time it advised that no more than 10% of total daily calories come from sugar. Cutting the recommended sugar intake in half is a large reduction, but I believe this action is necessary.

The WHO guidelines follow the results of a recent benchmark study indicating that consuming too much added sugar in processed and packaged food increases your risk of death from heart disease. Other research has clearly linked a high intake of added sugars to a number of adverse health conditions, including obesity, type 2 diabetes, high blood pressure, and risk factors for heart disease and stroke. Health and wellness recommendations from major health organizations do not happen without a tremendous amount of research and deliberation. And following more than two years of intensive review of the literature the WHO determined that dropping the recommended daily sugar intake to 5% would reduce the risk to Americans health. Further, the recommendation on severely limiting additional sugar intake from the American Heart Association is consistent with the new WHO guidelines.

The recommendation includes sugar that is added to any food, and includes fruit juices with additional sugar added and fruit concentrates. Added sugars also include table sugar, brown sugar, all varieties of syrups, honey, confectioners glaze, dried cane extract, dextrose, high-fructose corn syrup, agave nectar, molasses, and other calorie containing sweeteners found in prepared and processed foods and beverages. The recommendation does not include sugars that occur naturally in fruit, fruit juice, and milk and dairy products.

A large percentage of the sugars we consume today are found in processed and packaged foods that most people would not define as a treat or as sweets. For example one tablespoon of ketchup contains approximately one teaspoon of sugar. And additional sugar is often added to frozen pizza, many bread products, soups, yogurt, breakfast cereals, mayonnaise, and even many energy bars. Research indicates that nearly 75% of all processed and packaged foods and beverages contain added sugar or some form of additional sweetener. Many food manufacturers began adding additional sugar to their products when consumers became increasingly concerned about the amount of fat in their food. Manufacturers responded with hundreds of low-fat items, but often substituted sugar or other sweeteners to help maintain the palatability of the product.

In order to determine the number of calories from sugar contained in a product simply multiply the grams of sugar by four. For example, a product containing 20 grams of sugar will have 80 calories per serving from sugar, and if you consume 2,000 calories a day that equates to 4% of your daily calories. For an adult at a normal body mass index (BMI), consuming 5% of daily calories from sugar would equate to approximately 25 grams of sugar (i.e., six teaspoons) per day. Keep in mind that is less than what is typically found in a single 12-ounce can of regular (non-diet) soda, which contains approximately 40 grams of sugar.

So how does the sugar intake recommendation from the WHO fit with the recommendation endurance athletes have to consume a carbohydrate electrolyte beverage (e.g., Gatorade, Gatorade Endurance, Powerade, GuBrew, et cetera) during long training runs and races. First I believe it is very important to understand that those of us who walk or run half marathons and full marathons are not average Americans. And the WHO guidelines regarding added sugar intake are written for the American population as a whole.

My advice on this topic is the same as it has always been. When you are performing long distance endurance exercise, your body performs most optimally when it has an adequate supply of carbohydrate and electrolytes. When you are doing your long distance aerobic exercise, the carbohydrate you consume in a performance beverage is almost immediately utilized as a fuel source to power your skeletal muscle contractions. If your endurance exercise is going to last for longer than 60 minutes, you should consume the recommended amount of a carbohydrate electrolyte beverage. If your endurance exercise is going to last for less than 60 minutes, all you need is plain water.

But I want to be clear, even for those of us that do a lot of endurance exercise your body only requires the carbohydrate electrolyte performance beverage when you are actually doing your running. You do not need it the entire rest of the day, and you should not consume it then. Eliminate processed and packaged food and beverage products with added sugar at all costs the rest of the day. When you are not engaged in long distance endurance exercise much of the added sugar you eat is stored, and it also results in sharp spikes to your blood glucose. Neither of those outcomes are desirable from a health perspective.

Finally, I believe the new WHO guidelines can serve as a strong reminder that the onus is on the consumer to read and scrutinize nutrition labels. Educate yourself about your food choices, read the labels carefully. Quality food choices can have medicinal properties, as the ancient Greek physician Hippocrates said, "Let food be thy medicine, and medicine be thy food". You only get one body and what food and beverage products you put into it every day truly matters.

# A note from our master....Emily

# **March Madness: Referral Program**



- Why keep FSFP a secret from your friends, when we all can benefit from Health?
- Now is the time to spread the word about our wonderful program.
- During the month of March every member will receive one free additional month added to their membership for each member they refer to the program.
- Also, every time a member refers someone to the program, their name will be entered into a drawing to win one of two \$50 Amazon.com gift cards-one for themselves and one for the person they referred
- Want to increase your odds of sharing the health? Invite ME to come to your next department, faculty or staff meeting to speak about FSFP. You can also arrange for the meeting to occur in our building and I can give a tour. I could even come your way for a walking lunch meeting where along the way I discuss the program and its benefits, bring everyone to the building for a tour, and walk back again.
- Strength can be found in numbers, and those working together to become healthier will lead to a healthier workplace and university.
- Have you liked us on Facebook yet? Like and share with your co-workers, another way to refer others. <a href="https://www.facebook.com/OSU.FSFP">https://www.facebook.com/OSU.FSFP</a>

