TOWN HALL Q&A

4.9.20

HEALTH AND WELL-BEING — Mimi Zumwalt, M.D., is a tenured professor in the School of Medicine Department of Orthopaedic Surgery and Rehabilitation, director of the Sports Medicine Division in the Department of Family Medicine and a clinical adjunct in the School of Health Professions Department of Rehabilitation Sciences. Dr. Zumwalt is also an ACSM certified exercise leader/HIIT trainer and fitness consultant/competitor.

Toby Brooks, Ph.D., is an associate professor in the School of Health Professions and program director of the school's Master of Athletic Training program. In addition, he serves as an adjunct instructor for the Texas Tech University Department of Kinesiology and is a certified strength and conditioning specialist.

Moderator: TTUHSC Interim President and Provost Dr. Lori Rice-Spearman

Resources Shared:
Dr. Mimi Zumwalt: Facebook — fitquest@beyondbrokenbones; Work-Out Videos
Dr. Toby Brooks: Facebook — tobyjbrooks42; Blog — tobyjbrooks.com; FitBod (Apple app)

Why do you think it's important for us to exercise all the time, but particularly right now?
MZ: For me, it’s strong in mind and body, always, and your mind can overcome matter. As an orthopedic surgeon, I had to overcome a lot in terms of not only having to do school but knowing I need strength to do my job. And out of that, I got hooked on the endorphins that I get with exercising. Now, a lot of us are stuck at home, but you don't have to go to the gym to stay active. As you know, I have already instituted measures for my nurses and my employees of my department to get up and move and keep moving. So today, I would just like to go over some of the things that people can do with household items and then using things that they have at home to help them stay active, healthy and to increase the immune system to fight COVID-19.

Well, we are all supposed to practice good hand hygiene and also decontaminate and disinfect anything and everything. So, I thought, well what can people use that they are having to buy a lot of. And so, I’ve had to use bleach bottles: a full gallon is about eight to 10 pounds. So, while you've got it out to disinfect, why not do some exercises with it? The other thing that I’d recommend is keeping hydrated. A case of water weighs about 45 pounds, and that may be a lot for some people (to lift); but the individual bottles – you could use bottles and drink it as you (exercise). The main thing is, get up, get out, and fight what we call “seat cushion disease.” Let the blood flow throughout your body to decrease risk of blood clots and also ward off the unwanted weight gain that we get from too much sitting.

Some of our red Raider family members here are new to exercise. This is a new thing for them, and now they’re home and they have some opportunity and more time. Where do you recommend they begin?
MZ: They need to have an open space, and, of course, make sure they wear athletic shoes, water to hydrate, and make sure they wear the clothing that could dissipate sweat. A firm surface is the best, and get the kids and the whole family to do it — have fun. One thing that I do recommend is to move your arms above the head as that actually burns more calories because your heart needs to work harder to pump the blood upward. If they have bad knees or unable to do things with their legs, they can always just do the arm workout — bicycling with the arms, air boxing or punching things gets the heart rate up.
TB: There are a number of free or relatively inexpensive apps for the phone. What I use is called FitBod, I love it because it allows me to track my progress over time. Initially I was resistant to using an app like that. I teach strength and conditioning and rehab, and using an app like that seemed like cheating to me. But at the end of the day, I didn't want to have to craft a workout plan for myself. I think for a lot of us, we've got excuses. Time was the excuse before; well, now you don’t have that commute, so work out instead. There are plenty of apps. I saw that Beachbody is providing all of their workout streaming for free. You can just experiment with these apps and figure out what works for you. The biggest thing is to identify your excuses and obliterate them. Once they’re all gone, all that’s left are healthy habits.

A tip by a (Town Hall) presenter earlier this week was to set a timer as a reminder to move. Get up, do some things, sit back down, work for 15 minutes. What do you think about that as a possibility?
MZ: Yes, that is a great way to do it. Also, I would just make sure that they have water on hand. You have to stay hydrated throughout the day, otherwise you won’t have the energy to complete the workout.

What about the benefits of walking? Some of our red Raider family members just simply want to start with that. Is walking enough or do they need to add some other things to that?
TB: No, I think you have to start with who you are, where you are, and there's no need to bring shame into this. You don't have to think about who you were in high school or who you were when you quit working out. I work on the third floor of the HSC, and I’m used to going up and down the stairs every day. So, I need to need to be purposeful about replacing that in my day. If you’ve got a Fitbit or an Apple Watch or something like that, that can be a powerful motivator because at the end of the day you can realize you have not gotten your steps in and that will motivate you to get moving.

But you don’t have to have tech(nology) in order to be regular about your exercise. It’s just being purposeful about thinking, “I’m going to get up, and I’m going to maybe walk around the house.” If you’re immunocompromised, we don’t want you to walk around the neighborhood. But, walk around your house — not to the refrigerator — but just be purposeful about staying active because the temptation and the opportunity is there to just kind of form you into the shape of your furniture.

Do you have any pointers of how families can exercise together and have fun?
TB: Yes! The less you make it feel like work, the better it is. Really what you need are movement experiences. What they need is the ability to fail and to succeed and determine what’s good and what isn’t in terms of movement. So, the idea of an obstacle course is absolutely perfect. A game I used to play with my kids, is they lay flat on their belly and on the whistle or the snap, they have to jump to their feet, chop their feet, and then we’ll have a ball and they have to push it from one column to another but they can’t use the same means two times in a row. So maybe they bump it with their rear in one time, and they push it with their hands and they shove it with their nose another. But, they’re experimenting, and they’re learning how to use their body and becoming a proficient mover, which has health benefits down the road. So, if you’ve got those young ones at home, they’re not doing sports and they don’t have PE or recess right now, unless we’re purposeful about providing those movement experiences, that’s a critical window that they are not getting that stimulus. We as parents or as grandparents, knowing that we’re going to be in this situation for weeks maybe months, need to provide those experiences.

How do we improve our balance?
TB: The proprioceptive system tends to deteriorate as we age, but it doesn’t have to. A lot of times, fall risk and being fall averse leads us to be less likely to do things that train that system. And so, there’s kind of a fine balance between being safe and not doing things that might cause injury — or being over protective then underutilizing that system. The nervous system is plastic, and it will adapt. But if we don’t provide opportunities for balance, we start to lose it.

So, if I’m seated and I’m doing dumbbell raises, and I’m balanced in how I lift. Moving asymmetrically actually requires more core activation and balance than moving symmetrically.

For example, in a normal lateral raise, the movement is symmetrical and as a result, the left arm’s movement balances out the right and vice versa, so the net effect doesn’t really challenge the balance system. Good for strength, but not necessarily for balance. On the other hand, if I perform a front raise with one arm and a lateral raise with the other (like a dumbbell combo raise), suddenly the forces don’t balance out, and I have to engage my core to remain steady.
So as a result, I can use the exact same resistance but move differently and suddenly the movement challenges my balance system far more than it would if I were performing symmetrical movements.

**Talk to us a little bit about healthy eating and what that needs to look like.**  
MZ: Obviously we don’t want to run to the supermarket very often; I used to tell people to eat fresh food, fresh vegetables and fresh fruit. And if you can’t, then you can go to frozen foods, which may be safer during this COVID-19 crisis. I’m not a dietitian, so I’m not going to say I’m going to prescribe food, but you do want to stay away from processed foods — meaning anything that’s packaged. I used to tell my patients, clients, friends and colleagues, if you’re going to go to the supermarket, shop the perimeter of the store, avoiding the middle part, where all the packaged foods are. You also want to avoid fried foods, obviously. And even things like condiments and sugar. People don’t realize how much sugar are in Cokes and other things they drink such as Starbucks coffee. If you’re going to eat meat, try to limit it to once a week, and eat lean meat, chicken and fish, like salmon, which has fatty acids. You need protein so you can heal and so you can exercise to help build bones and muscles support for movement. Be mindful of what you’re eating and the portion size of what you eat. It’s better to eat a little bit more of the time throughout the day, than eat one big meal at the end of the day and then sit — that is going to add weight and you will not metabolize your food as well.

**What about what we’re drinking during the day?**  
TB: I had completely eradicated my energy drink habit as of the first of the year, and I hate to admit it, but the stress of this situation kind of drove me back to it. But I’m out again, and I’m not buying any more. So, whether it’s your coffee addiction or your caffeine addiction, better to try to leave that behind. I also understand, and I’m saying this with our students a lot, this is a stressful time so the thought of going completely cold turkey may not be what’s absolutely ideal. I want you to make good decisions more often than not, but don’t beat yourself up if you happen to have a bit of a stress response and do consume amounts of coffee or carbonated caffeinated beverages. However, water is going to be ideal. I will oftentimes do like protein shake in the morning just to help get that number up, as getting enough protein can be a challenge. I’m shooting for a gram of protein per pound of body weight, and sometimes that’s hard to do while staying under my caloric goals. So, if you’re not looking at muscle mass, you know, six-tenths to seven-tenths of a gram per pound of body weight is probably okay. But by and large, just staying hydrated is just good for overall health. So, having a water bottle or a decanter or something to just kind of nurse on throughout the course of the day is going to be a good habit to get into.

**Can we receive a link to Dr. Z’s workout video?**  
MZ: Yes, absolutely. So, we’ll have to put that on the site, I have a page where I post a lot of training videos. I would just say that some of the stuff that I do, please, don’t try that at home. Be very careful of what exercises you choose.

**I’ve heard, even if you exercise moderately, sitting all day offsets those benefits. If that’s true, how many times a day is it necessary to exercise?**  
TB: I’m not sure that it would necessarily negate those things, but there’s no doubt it affects us being in this flexed position. I’ve got a PT friend who says we tend to mold to the shape of our furniture. Right? We get in this hip-flex position, or we’ve got this, this slouch, or posture when we’re at our desk. We have to combat that, and it’s going to take more than three minutes of stretching to combat eight hours of sitting in this kind of fetal position. Hip flexor mobility is certainly one that you’re going to want to be strategic about and tackle, so you want to stretch those quads and stretch the hip flexors. Good postural exercises are important as well: just doing some things to kind of open that chest and sit tall. One of the things my family and I are doing during this time is we’re doing a family book study and one of the books we’re reading is “12 Rules for Life” by Jordan Peterson. The very first chapter is to stand tall with your shoulders back, and we talked about importance of posture. What a great lesson for them to have, when we do go back to society and you’re out there in public having that good posture. It will behoove you, but right now there are health benefits to that. So, do some things like opening that shoulder up with some scapular retraction exercises. Being able to work in at my standing work space is something I’ve discovered that I miss; so, I’ll just get up and move around.

LRS: I’ve even heard some faculty and staff talk about how they’re having a lot of stiffness in their neck and across their shoulders, and a PT friend recommended that you just like try, a couple times a day, to lie flat on your back on the floor with your knees bent and just let all of that stretch while you try to press back into the floor.
What if you fractured your foot, and you’re unable to walk or run around what do you recommend for exercise?

MZ: Okay, guess what, if you fracture your foot and you’re wearing a boot that could be used as weight! Obviously, if you can’t put weight on your foot, then you can just do hopping on the other side. I did mention about the arm workout as well. That actually works your heart more so than a lower body exercise. And if you have one of those foot exercises (stationery pedals), you can just put it on a counter or something, and then just use that.

TB: One thing we do a lot of in rehab is stool scoots. If you’ve got a hard surface floor, it’s pretty easy to scoot across that floor. As you get better, you might move to carpet. That’s a great hamstring exercise without being load bearing. Get creative and recognize that things aren’t going to necessarily be perfect, but they don’t have to be; we’re all just figuring out how we’re all going to cope with this new normal.

How often and how long would you need to watch to see changes in your body such as a smaller waistline?

TB: If you want abs about 80% of that is diet, and about 20% of that is exercise. So, there’s certainly a nutritional component that needs to play a role if we’re looking for our pants to fit a little looser at the end of this pandemic than they do now. But to see any kind of substantial training effect, regardless of what we’re doing, it’s probably in the neighborhood of two to three weeks. I’ve heard it said before that if you start an exercise program from scratch it will probably take you about a month to notice; it will take people who know you pretty well about three or four months to notice, and then it will take people that you’ve never met about a year or you regular working out for them A lot of people get discouraged during those first few weeks. You really need a mental shift. Instead of thinking about my diet, I want to think about how I’m fueling my body; instead of thinking about how I’m exercising, I’m thinking about how I’m training. I am training so that I can be a better worker; I’m training so I can be a better husband and a better father. I want to be in peak condition so that the things that I have to do are going to be facilitated by my behaviors and, and that’s changed how I view exercise. I’m not just doing it so that I look better in the mirror, although that might be a happy consequence, maybe. But even if it’s not, I know that I’m better equipped to do the things throughout the day. So, to that person I would say, give it time. But if you’re consistent about it by the end of this pandemic your pants are probably going to fit better as long as you’re fueling your body appropriately.

If a joint hurts during exercise, should you exercise through the pain?

TB: You really do have to listen to your body. There’s a difference between soreness and pain. That may be a subtle difference for some people if they’ve never really exercised, understanding that pain is usually a sign of tissue trauma where, in some way soreness, on the other hand, is a training adaptation. And so, if I don’t know the difference between those two things, I’ll probably err on the side of caution and peel back a little bit. Most of us are training for a competition, we are training for life, and so having a lighter week isn’t going to derail those goals. If I’m having discomfort or pain during training, then I’ll look for some alternatives, some regressions, some alterations in my training so that I can eliminate that. If I’m talking to the Texas Tech athlete, then it’s a different answer. But for most of us, listen to our bodies.

What’s the best time of day to exercise? I hear working out in the morning keeps your metabolism going all day.

MZ: I think, exercising anytime is good. We’re always fighting to increase our quality, if not prolong our quantity, of life. In this critical time, now we must take care of ourselves in order to take care of others. And so, I would say, do what you can, when you can; make it a ritual; make a routine, and make it a daily activity. It’s got to become almost like a religious thing that you need to do get in your mind.

TB: I would add that I came across a study, that, although there were some holes in it, suggested that working out later in the evening was actually better for testosterone response in males. So, there’s some evidence for guys that it may be more beneficial to do resistance training later in the evening, and then you’ve got all night to kind of recover.
QUESTIONS ANSWERED OFFLINE

The following questions were asked during the Town Hall, but due to time constraints were not answered. Dr. Brooks and Dr. Zumwalt provided the following responses offline.

What are some alternative weights we can use since almost everything is out of stock or will take months to deliver?

MZ: Soup or other food cans; bags of pet food or feed; bags of rice; fruit in a bag; empty bottles filled with grains such as rice, etc.; paint containers; pail or box filled with your choice of items; laundry bag with clothes; milk jugs or other containers of liquids; packs of books; and bungee cord for resistance-type exercises.

TB: These are all great! Some other ideas I’ve seen recently include things like landscaping stones, larger tools like hammers, loaded suitcases, and even those therapeutic weighted blankets for adding resistance.

What exercise do you recommend as the best type of exercise for people with balance and walking issues who need to improve leg strength?

MZ: Leg extensions (sit and move foot up from floor; straighten leg by extending from the knee) — you can add ankle weights for more resistance; isometric (squeeze thigh muscle with knees and legs straight on a solid surface), sit with your back against the wall (near a corner so you can use the other side of the wall for support) and hold (squeezing abs and lower body muscles) — increasing time and lowering your body by bending your knees — as your strength increase, but do not “squat” lower than a right angle (at the knee). Keep your feet further out than your knees.

TB: Straight leg raises, short-arc quads, and glute squeezes are all simple isometric or limited range movements that can help with recruitment. Stool scoots can be fun and chair sit-to-stand/stand-to-sit is highly functional. Getting in and out of the car is functional and also adds the benefit of support through the car itself that can be grasped for added stability.

If you’ve already been on a weight loss journey and have hit a plateau, any suggestions for breaking the plateau?

MZ: Add either HIIT training (shown in my video) to burn more calories and/or resistance exercise. Also, eat more protein to build muscle to increase metabolism.

TB: Patience and honesty. A calorie tracker app is helpful, but only if you are honest in using it. Added sneaky calories like sauces, sugary drinks, nibbles here and there on snacks, etc. can significantly increase total consumption and underestimating portion sizes can do the same. The app may show that you are even or in deficit, when in fact you are consuming a caloric surplus. Take inventory of your behaviors and see what might be the most likely culprit. High intensity exercise can really benefit the metabolic rate, so swapping out the slow cardio for interval training may be a great strategy to break through.

What about exercising when you are feeling a little under the weather?

MZ: If it’s just the sniffles, then you can do light cardio (walking, etc.) for light sweat; but if you have body aches and/or fever then just rest and hydrate and don’t overexert yourself physically.

TB: You have to know yourself; but for me personally, working out on those days I don’t feel like it is a MENTAL victory even if the workout is terrible and I don’t get much out of it physically. Rest is a critical piece in the recovery process, though, so be wise and understand that MORE work isn’t always the best answer. Sometimes light stretching/tissue-quality work like the foam roller or some simple yoga vinyasas may be the best possible prescription. And, sometimes going back to bed and resting is best. Trust your body but be willing to push through the “don’t want to” from time to time, too.