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Gifted Scientist, Teacher, Leader, and Special Human Being: A Tribute to Jack Wilmore

by James S. Skinner, PhD, Professor emeritus of kinesiology, University of Indiana



Jack Harrison Wilmore

The profession lost a great scientist, teacher, leader and human being last November when Jack Wilmore passed away at the age of 76. He is survived by his wife, Dottie, their three daughters. Wendy, Kristi, and Melissa,

and many grandchildren.

Jack earned his PhD from the University of Oregon in 1965. He taught at Ithaca College (1965-66) and the University of California at Berkeley (1966-70). He was director of physiological evaluation at the Preventive Medical Center, Palo Alto (1970-71). He taught at the University of California at Davis (1971-75) and was the executive director, National Athletic Health Institute, Inglewood, California (1975-76). He went on to teach at the University of Arizona (1976-85),

the University of Texas (1985-97), and Texas A&M (1997-2003). He was a distinguished professor at both Texas and Texas A&M. He was a consultant to the Los Angeles Dodgers, Rams, Lakers, and Kings, as well as the California Angels and San Francisco 49ers. During his long and productive career, Jack published 317 research articles, 55 chapters in edited books, and authored or coauthored 15 books.

How does one discuss a person like Jack? If you ever met him, there would be no real need to have someone else write about him, what he did and who he was. He came across as someone who cared for others, who loved learning and sharing his vast knowledge with others. If you never met him but are in the same profession, then you probably have read many of his books and research articles or heard him lecture. If so, then you know how much he did for the profession and how much you learned from him.

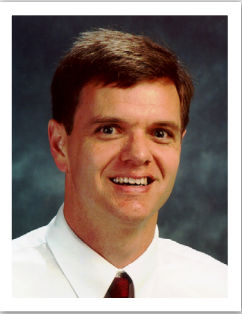
So many things have been said and written

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PRESIDENT'S MESSAGE

Back to the Future

By Duane Knudson, AKA president



Duane Knudson

I am delighted to be serving as the 2015 president of the American Kinesiology Association (AKA). This New Year was introduced by some observers comparing the technologies envisioned for 2015

(it was a time travel movie) in the 1985 movie *Back to the Future* with new technologies expected this year. In the field of kinesiology in 2015, perhaps we should also look back to the future in reference to 2015.

The academic discipline and departments of kinesiology have much to offer academe and the world. In North America alone, there have been over 130 years of outstanding research, teaching, and service in all areas of human physical activity. From the beginning, a diverse group of human physical activity physicians and academics have made groundbreaking discoveries on the need for and benefits of physical activity and the ways to improve movement and decrease risk of injury. Despite Nobel and

MacArthur prizes awarded to those in the field over the years, kinesiology remains off the radar for much of higher education administrators, political leaders, and the public.

This lack of recognition is ironic because kinesiology has a long history of outstanding research and currently there is even greater need than in the past for this knowledge. While kinesiology is at the forefront of research efforts to combat the epidemic of morbidity and mortality related to low levels of physical activity, we need to tell our story better to many publics.

The AKA was founded, in part, to help bridge this recognition gap. The AKA mission and strategic plan are built around four goals: advocate, communicate, support, and expand the field of kinesiology. In short, the AKA is trying to bridge the gap between the reality of kinesiology and several publics' perceptions about kinesiology. AKA is now represented on the board of directors of the National Physical Activity Plan (www.physicalactivityplan.org). The NPAP will be revised after a national congress this month. Dr. Wojtek Chodzko-Zajko (University of Illinois) is the AKA representative on the

NPAP board of directors.

So in 2015, kinesiology is generating cutting-edge knowledge on physical activity and is at the table where national policy on promoting physical activity is being discussed. AKA is a partner with kinesiology departments in telling our story. While the AKA can do a lot to advocate and communicate about the importance of kinesiology in higher education, we need your help. Kinesiology will not receive the recognition or funding it deserves without all of us speaking the truth. Perhaps a civil rights metaphor for unjust budgets and academic credit is a little strong, but we in kinesiology do need to collectively tell our story to advance our field.

It would be unfair and inadequate to expect our sport management colleagues with expertise in marketing to be the only faculty promoting kinesiology. We need all faculty to promote kinesiology using their best publications and achievements, noting their research and other related work is from the field of kinesiology. In doing this we need to carefully avoid any hint of overgeneralization and application of the

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A Conversation With Rainer Martens



Rainer Marten

Rainer Martens, founder and president of Human Kinetics, Inc., along with wife, Julie Martens, was responsible for the founding of AKA in 2008. Shirl Hoffman asked him to comment on developments in AKA and the field of kinesiology.

SJH: Many recent AKA member departments may not know that AKA traces its existence to the generosity of the Martenses. It was indeed a sizable commitment of seed money from the Human Kinetics Education Foundation that gave birth to AKA. What general developments in our field led you to believe that AKA would be a good, even essential, organization?

M: What is our field? Throughout my academic and publishing career the lack of clarity about what “our field” is has been an obstacle. Someone reported once that over 100 names were used for academic departments in higher education that were concerned with physical activity. As the subdisciplines emerged in the latter half

of the last century, our field became more fragmented. With fragmentation we lost representation, sometimes on our campuses, often with affiliated professions, and always with national associations concerned with higher education issues. We weren’t represented; we lacked a voice.

Let me back up a bit. Through the ’70s, ’80s, and ’90s, members of our field began to see more clearly that “our field” consists of a discipline and a good number of professions who draw on the discipline as a major source of knowledge for practicing their professions. And the term kinesiology began to be used with increasing frequency to label the discipline. Throughout the last 30 years we’ve seen kinesiology become

the name for more and more academic departments and scholarly associations. The readers of this newsletter will of course know that.

SJH: Has Human Kinetics played a role in this?

M: As our publishing program developed at Human Kinetics, we strongly promoted the term kinesiology as the name for the discipline by the content in books we published and our promotional materials. For example, we produced a separate catalog for kinesiology books and journals, with the various subdisciplines of kinesiology included therein. And as you know well, we published *Introduction to Kinesiology*, which you edited and is now in its fourth edition. That text is a landmark book that provides the foundational knowledge for the discipline of kinesiology.

SJH: How, then, did the idea of AKA become a reality?

M: In 2006 Roberta Rikli wrote a provocative article titled “Kinesiology—A Home-

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DO THE RIGHT THING

Keeping the Ball Rolling: Continuing to Address Issues of Diversity and Inclusion in Kinesiology

By Jared Russell, School of Kinesiology, Auburn University.



Jared Russell

Recently, I had the pleasure of participating in my third American Kinesiology Association (AKA) Leadership Workshop in Charlotte, North Carolina. The annual leadership workshop provides faculty and administrators opportunities to network with colleagues, problem-solve pressing administrative concerns at respective home institutions, and learn about pivotal issues that affect the field of kinesiology. My first workshop's (Orlando 2013) theme focused on addressing the lack of ethnic diversity of kinesiology students and leadership in academic programs. Dr. WojtekChodzko-Zajko's AKA President's Column that appeared in the winter 2013 issue of *KT* ("Lessons in Diversity From the AKA Leadership Workshop") and Dr. Mary Rudisill's Do the Right Thing column "A Change Is Going to Come" in the summer 2013 issue do an excellent job of

presenting the organizational intent of the event as well as the positive outcomes of that meeting (e.g., the creation of a formal diversity task force, publication of a diversity-themed issue of *Kinesiology Review*, the addition of content and resources to the organizational website). These actions are to be applauded and celebrated. To date, AKA is continuing the work of addressing diversity and inclusion while increasing opportunities for all kinesiology faculty and administrators to be better prepared for an ever-changing and diverse world. As I reflected on this year's workshop I decided to take this opportunity to suggest a few considerations for the organization as we proceed into 2015:

1. *Continue* to make diversity and inclusion a strategic priority for the organization and its member institutions. Individual academic programs will approach recruitment and retention processes differently based on their institutions' current demographics, geographical loca-
2. *Encourage* participating members to address issues of student and faculty diversity—particularly in the areas of recruitment and retention—on their own respective campuses. Promote the AKA website, which has an ever-increasing amount of diversity-related content available to administrators looking for best practices and strategies, examples of successful programs, and individuals with expertise in the areas of faculty recruitment and retention.
3. *Invite* representatives from historically black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs), and Native

tion, and other key variables. AKA can serve as a resource center for those seeking advice and information on appropriately implementing strategies that promote diversity and inclusion at their respective institutions.

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Ready, Set, Have Fun

By Amy Rose, KT Staff Writer

All things in moderation is the key. So, if you put together a little eating, a little drinking, and a little running, it adds up to a lot of fun for everyone.

With the rising popularity of competitive and charitable distance races, organizers are looking to entice runners with gimmicks and themes that might be tempting to some of the runners' not-so-healthy habits. Seventy-five-year-old Gordon Gillmouth enjoys running in the Oregon Wine Country Half Marathon and other wine-themed races hosted by Destination Races. "For me it involves two of my favorite things: wine and running," Gillmouth said. Destination Races president Matt Dockstader said the concept for the race came to him after running home through Sonoma wine country after having a few too many sips for the drive home. "I realized it was a really beautiful run," Dockstader said. A lot of runners are also wine enthusiasts, according to Dockstader. "Red wine is a good choice in terms of adult beverages." So why not combine the two? Most of the wine drinking actually takes place the evening before the race and at the wine and music festival held direct-

ly after the race. There is wine tasting at the expo on race day, and runners may imbibe a "healthy sip" at one of the water stops about halfway through the race. Gillmouth likes to do the best he can during the race, because the winner of each age division receives a nice bottle of wine for a prize. "Most people are not going to be overimbibing. They manage themselves, but like anything else in life, you need moderation."

If you are looking for something a little more challenging to your belly and not your legs, you might want to head to the campus of North Carolina State for the Krispy Kreme Challenge. "It is a test of physical fitness and gastronomical fortitude," according to two-time participant Rusty Mau. A group of NCS students had this crazy idea that they were going to run from campus to the local Krispy Kreme shop, eat a dozen doughnuts, and run back, all in under an hour. It was just crazy enough



Krispy Kreme Challenge



Krispy Kreme Challenge

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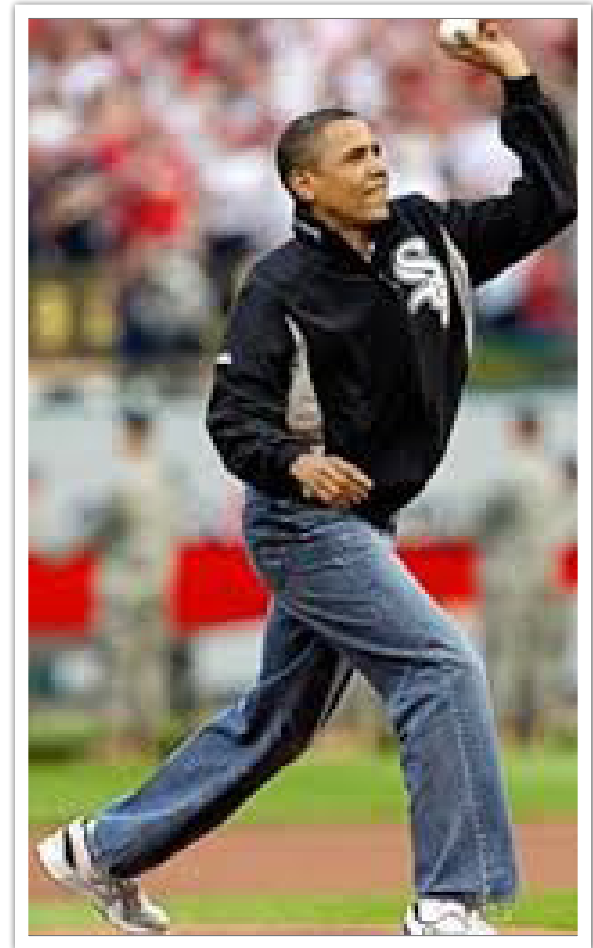
Revisiting President Obama's "Girlie" Throw

By Shirl Hoffman, KT Editor

“The guy throws like a girl. I’m sorry. He throws like a girl; he had a girlie toss.” Such was the opinion of conservative radio host Rush Limbaugh after watching President Obama throw out the first pitch in the 2009 MLB All Star Game. (See video at www.youtube.com/watch?v=K-Tart58c7E.) Limbaugh wasn’t alone; the cybersphere was flooded with critical comments after the presidential pitch barely made it to the plate. Predictably, comments fell along party lines. According to the *New York Times*, “Once Obama made it to the mound he eased into his motion and softly floated a pitch to Albert Pujols.” According to the Gawker website, “The verdict seems to be that Barack Obama throws like a girl, which probably shouldn’t be all that surprising considering that he’s a latte-sipping communist.” The president was marginally better at a Washington Nationals game the next year, but when he visited a Little League game in 2014, he slipped back into his elbow-first, limited-trunk-rotation form often associated with those throwing darts and unskilled female throwers. (On a more optimistic note, he did step forward with the contralateral leg.)

Obama isn’t the only politician to have failed the throwing test. On MLB opening day in 1994, reporters buzzed when Hillary Clinton threw out the first pitch at Wrigley Field. *The Atlantic* described it this way: “In preparation for her throw she was standing directly facing the plate. A right-hander, she had the elbow of her throwing arm pointed out in front of her. Her forearm was tilted back, toward her shoulder. The ball rested on her upturned palm. As the picture was taken, she was in the middle of an action that can only be described as throwing like a girl.” Were these two politicians really throwing like a girl?

As students of Sport Biomechanics 101 know, the power of a throw comes from a variety of joint actions but is most affected by the separate and sequential rotation of the hips and trunk along with external rotation of the shoulder around the long axis of the upper arm. As the hips and trunk begin their forward rotation, the arm begins its backward (external) rotation, resulting in the characteristic lag of the ball. Performances dubiously dubbed “girl throws” tend to lack separation of hip and trunk action (rendered impossible when the thrower steps



forward with the ipsilateral rather than the contralateral leg) and limited or no shoulder rotation. The ball and elbow stay in front of

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The Real Skinny on Abs: Traditional Crunch Versus Exercise Machines for Strength Training

By Siv Schwink, KT Staff

There are many well-founded reasons to include abdominal exercises in fitness regimens and physical therapy programs. Strong abdominals are essential for good posture; these muscles aid spinal erectors to hold the vertebral column and pelvis in proper alignment. Not surprisingly, strengthening the body's core has been shown both to minimize the risk of lower-back injury and to aid recovery from nontraumatic lower-back injuries.

Recent studies have also pointed to the role of abdominal strength training in reducing risk of falls in older adults; gains in balance and functional performance are as high as 23 percent. And sport and exercise research consistently finds that abdominal strength training represents a huge competitive advantage for athletes, allowing for better stability in motion, improved limb coordination (abs engage to support arm and leg movement), greater endurance, and increased explosive strength.

Of course, for some, a fit, sculpted appearance is another great motivator—the allure of gaining six-pack abs is used

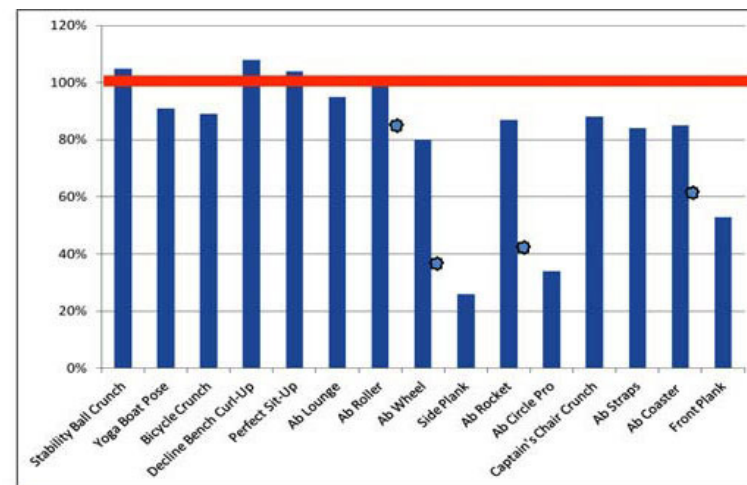
to mass-market personal fitness devices, many of which promise to deliver stronger, more ripped abs in less time and with less effort than other workouts.

But what really works?

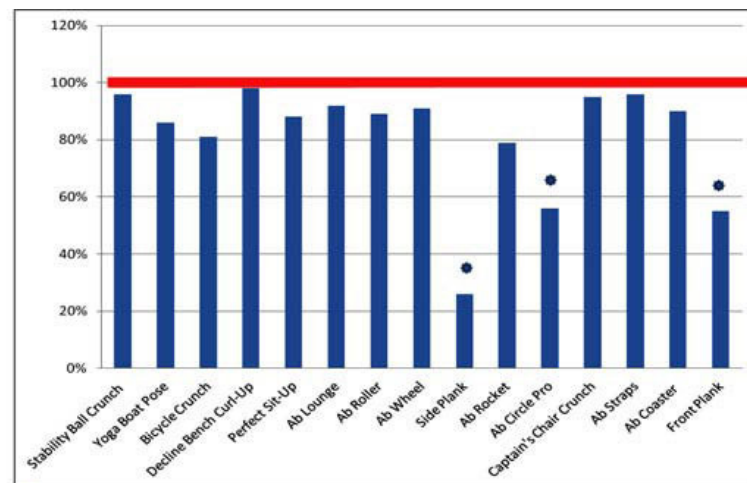
A study funded by the American Council on Exercise and carried out at the University of Wisconsin at LaCrosse pitted traditional crunches against some of the leading ab-strengthening fitness equipment on the market today and found that none exceeded the traditional crunch (when executed with proper form) in muscle activation of the upper and lower rectus abdominis—the muscles that form the six-pack.

What's more, the researchers found the upper and lower abdominis are one sheet and

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• Significant difference than the traditional crunch (p < 0.05)
Red line represents the traditional crunch.



• Significant difference than the traditional crunch (p < 0.05)
Red line represents the traditional crunch.

Milestones

South Pole Trek

Fifty-eight-year-old Patrick McIntosh from Surrey, England, completed his much-advertised trek across Antarctica to the South Pole in January. McIntosh had recently won battles with intestinal, skin, and prostate cancer. He and his guide carried their own equipment on the 138-mile journey, which they completed in 11 days, hiking 8 hours each day. He trained for the trip using a ski machine and jumping into a cold outdoor swimming pool as part of acclimatization training. His feat brought in \$100,000 for cancer research.



Can't Resist Doing Cartwheels

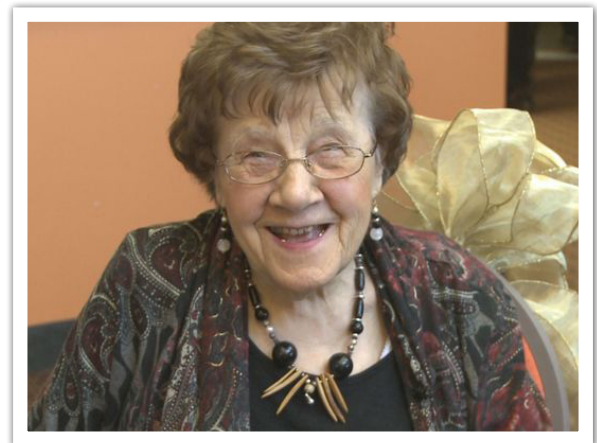
Phoenix resident Dianne Barker has been banned from performing cartwheels during her presentations to the Maricopa Association of Governments. The board points to fear of injury and the general disruption caused by her antics as a reason for their action. A sharply worded letter from the association warns the 65-year-old woman, "Not following the rules may result in the chair revoking your request to speak at the meetings." Barker, a former Ohio State cheerleader, claims she performs cartwheels to call attention to the health benefits of biking.

See Barker in action at www.kpho.com/story/25697656/phoenix-woman-banned-from-doing-cartwheels-at-public-meetings.

Oldest Fitness Instructors in the World?

A recent study in *Journal of Aging and Physical Activity* found levels of physical activity to be quite low in retirement facilities. Only 1% of residents' time was spent in moderate to vigorous activity each day. Somehow the message that you are supposed to be sedentary when you move to senior housing didn't reach Hildegard Gigl of Milwaukee and Laretta Taggart of St. Paul, Minnesota. Gigl leads an exercise class in her housing complex. All of the members are over 75. Gigl will

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100-year-old Laretta Taggart.

Greasing the Skids to the Department Head's Office

By Shirl Hoffman, KT Editor

Faced with the prospect of a shortage of administrators in higher education some institutions are beginning to seed programs for professional development of the next generation of department heads. The American Kinesiology Association, through its annual leader workshops, also is committed to developing and sharpening the knowledge and skills of department chairs. A study reported in *Change* last year shed some light on the problems faced by those set on such a mission. A research team interviewed 19 united administrators (primarily department chairs) and 16 faculty identified by their provosts as mid-career faculty with an interest in academic leadership.

Here are some of their findings:

- Although service roles are often disparaged, they are instrumental in the development of future leaders. Taking them on enabled the administrators in this study to assess and hone their skills over time in low-risk contexts, helping them determine whether they enjoyed service and leadership and to learn about the institution and how organizational work gets done.
- Respondents were split over whether junior faculty should be “protected” from service and leadership responsibilities until they have been tenured. Some thought it essential; others thought the policy encouraged young faculty to think that leadership is not their responsibility.
- Not all faculty are interested in assuming administrative roles. Some thought they would have to abandon their first love—teaching. Others (especially STEM researchers) considered a move to an administrative position an exit from the ranks of researchers from which there was no return. Some stressed the difficulty of leading a unit when faced with decreased funding for higher education. Others were hesitant to assume responsibility for supervising and evaluating those who may have been long-time friends or adversaries.
- Administrators thought that their own behaviors could be ways of inspiring future leaders. They also pointed out the need to encourage promising faculty by validating their potential leadership skills and, where fitting, pointing out to them that they would be good leaders.

De Zure et al. January-February 2014. Cultivating the next generation of academic leaders: Implications for administrators and faculty. *Change*.

Profile of Freshmen at Four-Year Colleges

According to data from the Higher Education Institute (2013), 47% of entering freshmen studied just 1 to 5 hours during their senior year of high school. Seventy-two percent rated themselves in the highest 10 percent or above average in academic ability, 46% in writing ability.

Technology

GoRecess.com lets you search for fitness classes at 275,000 locations across the country. You can search by exercise type (yoga, cardio, Pilates, strength, dance, prenatal, martial arts), location, price, and time. A map locates the fitness sites. GoRecess founder Megan Smythe, whose background is in business and finance, is a marathoner who, after finding it frustrating to find open fitness classes at times she was available to exercise, wondered, "If we can so easily find and book a restaurant reservation on Open Table or find a flight on Kayak or Expedia, why can't we do the same for workouts?"

Wisconsin Mother Sues Pop Warner Football

We have witnessed the first fallout from a recent announcement by Boston University researchers that former NFL players who had participated in tackle football before the age of 12 showed greater declines in memory and cognitive function than peers who started playing in their teens. A Wisconsin mother, Debra Pyka, alleges in her suit that her 25-year-old son's suicide was the result of chronic traumatic encephalopathy he suffered as a result of concussions incurred while he was playing Pop Warner football from 1997 to 2000. In the suit she claims that the organization should have known that playing the sport endangers kids ages 12 and under.

UMass Researchers Study Balance in Multiple Sclerosis Patients

Assistant professor Stephanie Jones and research professor Richard van Emmerik of the kinesiology department at the University of Massachusetts have received a \$39,000 grant from the Multiple Sclerosis Society to study whether sensation in the feet while standing is related to balance and whether vibration to the soles of the feet at a level below the detection threshold might aid walking and improve balance in multiple sclerosis patients. People with multiple sclerosis often report loss of peripheral sensation and, as a result, have trouble walking and are fearful of walking.

EDITOR'S TWO CENTS' WORTH

Following the Trails of Giants

By Shirl Hoffman, KT Editor



Shirl Hoffman

The recent passing of Jack Wilmore, a giant in our field, led me to reflect on all the other giants who have populated Kinesiology, some still with us, many now gone. From Hetherington and Williams

and Wood and McKenzie, to Cureton and Obertueffer and Metheny and Scott. From Larson and Ainsworth and Glasow and Broer, to Clarke and Obertueffer and Jewett and Espenchade. From Lawther and Cooper and Bennett and Cassidy, to Fraleigh and Slater-Hammel and Henry and Kenyon. From Locke and Singer and Siedentop and Park, to Drinkwater and Kretchmar and Spirduso and Atwater and hundreds more.

We as biomechanists, sport philosophers, sport psychologists, athletic trainers, exercise physiologists, or other specialists in kinesiology owe a debt of gratitude to those who gave birth to our field and diligently mentored it for over 100 years. Kinesiology wasn't always kinesiology; it began as physical education, a title that now seems strangely narrow for the assortment of academic progeny it

has spawned. The transition took place in the 1960s and continued into the '70s as the field moved from a narrow profession solely focused on teaching sport skills, fitness, and coaching to a broader and more encompassing academic discipline with a focus on human movement.

This didn't happen by accident, and its continued flourishing hasn't just happened. Serious thought and discussion were invested in the status and future of the field. Should we organize ourselves as a discipline or a profession? Should sport and exercise be the core concern of the field, or should the discipline be organized more broadly around physical activity in general? These weren't simply theoretical arguments. The results would determine ultimately how we organized and staffed our departments. One of the first papers was Abernathy and Waltz's "Toward a Discipline: First Steps," published in the 1963 issue of *Quest*. Conferences were held, and debates (some of them fierce) were waged. The giants labored on.

Those of us lucky enough to have inhabited the profession during the transition have a keen sense of appreciation for those who guided us. As the field continues to develop and expand and subdivide further

into microspecializations, it is important that we not forget the stalwarts whose efforts helped shape and continue to shape a field around which so many of us have formed our professional and even personal lives.

And in remembering them, it is equally important to remember that fields of study don't do well on autopilot. While each new generation of scholars reaps the benefits of these who came before them, they also assume the mantle for responsibly nourishing and protecting the broad field in which they work.

Each area of academic specialization has its giants, of course, but I believe that 100 years from now, the giants whose visages will stand out in sharpest relief on the Mount Rushmore of the field are those who, while excelling in their specialized area, went beyond its narrow boundaries to think and act broadly, impressing their influence on the whole field. They are known for their commitment not simply to their own scholarly agendas but to kinesiology. Amid busy schedules, they find time to care for the discipline and to invest time and energy that may do little to advance their scholarly careers but will shore up the foundations of the field for future generations of scholars. Jack Wilmore was one of those.

Short Shots

Vitamin D Deficiency Linked to Lower Physical Activity in Severely Obese

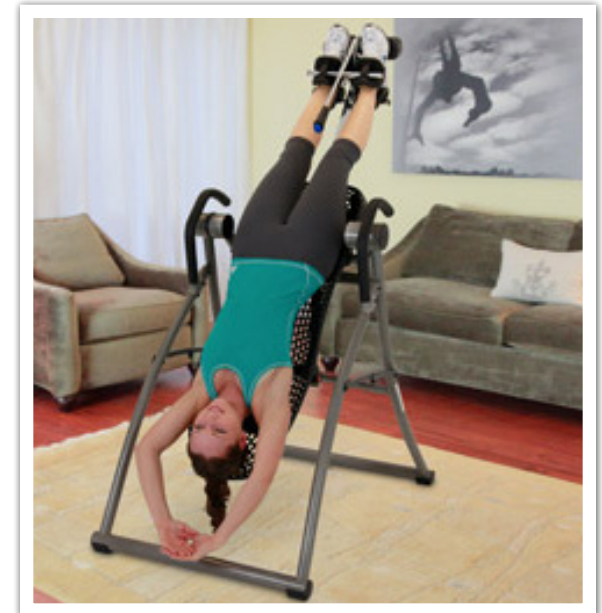
A recent research study reported in the *Journal of Clinical Endocrinology & Metabolism* found a link between vitamin D deficiency, pace of walking, and self-reported physical activity in a population of obese participants. Researchers studied 252 severely obese people. Blood samples were drawn and used to classify participants into three groups based on vitamin D levels. Participants were timed as they walked 500 meters and climbed up and down a single step 50 times. Estimates of their physical activity levels based on self-report measures were also collected. They took a blood sample to assess participants' vitamin D levels and divided them into three groups based on D levels. Investigators found a significant relationship between vitamin D levels and self-reported physical activity levels and vitamin D levels and physical function. They suggest that improving the vitamin D status (including higher exposure to sunlight) of obese people may improve their quality of life and decrease the risk of early death.

Ahern, T., et al. (2014). Association between vitamin D status and physical function in the severely obese. *Journal of Clinical Endocrinology & Metabolism*. DOI: <http://dx.doi.org/10.1210/jc.2014-1704>.

Dick's Sporting Goods Recall Inversion Table

Dick's has recalled a series of popular inversion tables sold in its stores: Fitness Gear Inversion Tables STE00059FG and STE00118FG sold online between November 2011 and September 2014. Inversion exercises are thought by some to help decompress the spine (some research suggests the effects are short-lasting). The company wasn't specific about the problems leading to the recall other than referring to some falls and injuries sustained due to customer failure to engage the ankle-locking system. In a carefully worded statement, the company said, "While the Fitness Gear Inversion Table product manual clearly stresses the importance of ensuring the ankle locking systems are engaged, some customers have fallen and sustained injuries." Only one injury episode has been reported on Safer Products.gov (www.saferproducts.gov/ViewIncident/1283113): A 58-year-old female claimed to have incurred long-term serious injuries after trying to do the

inverted exercises shown on the video that accompanied the table. After assuming the inverted position, she said she "...felt the table slip and I grabbed for the pull-up rails. Next thing I know, I'm falling onto my head with body crashing down full force onto the hardwood floor." She claims she suffered a concussion, contusions, and strained muscles.



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Short Shots

Broad-Based Education Still Preferred by Employers

A new report released by the Association of American Colleges and Universities offers push-back against the notion that higher education should emphasize career and vocational training over a liberal arts education. The report claims that 75% of employers endorsed broad-based learning as the key to success in any career and said that this should be a required part of any college major. Employers were nearly unanimous in identifying knowledge of U.S. democratic institutions as an essential part of a liberal arts education, yet they also stressed the importance of developing practical skills in college. Sixty percent preferred job applicants with a broad education as well as field-specific knowledge and skills. Ninety-four percent were more likely to consider hiring graduates who had internship experiences, and nearly as many said they would prefer job applicants who completed senior research projects that required research, problem-solving, and communication skills. Only 14% thought that graduates are adequately prepared for the workplace.

Association of American Colleges & Universities. January 20, 2015. Falling short? College learning and career success. www.aacu.org/leap/public-opinion-research/2015-survey-results.

More Bad News About Sitting

A recent meta-analysis reported in *Annals of Internal Medicine* adds fuel to the fire of those claiming that sitting is bad for you. The study, based on 47 investigations, identified links between sitting for prolonged periods and increased risk not only of cardiovascular disease but also type 2 diabetes, cancer, and early death. Although those who engage in regular physical activity (at least 20 minutes per day and up to 7 hours per week of moderate exercise) are 30% less likely to die of any cause than those who do not, even those who couple long periods of sitting with vigorous workouts have a 16% greater risk of death than those who avoid lengthy periods of sitting. The investigators estimate that prolonged sitting raises a person's risk for diabetes by 90% compared to the risk for regular exercisers and less so for cardiovascular disease (18%) and cancers (13-16%). How one might regulate the amount of sitting given daily requirements of jobs and other obligations remains to be answered. Debate continues regarding



www2.le.ac.uk

what constitutes long periods of sitting: Is it sitting for 1 hour each day or watching television for at least 5 hours each day?

Biswas, A. et al. (January 20, 2015). Sedentary time and its association with risk for disease incidence, mortality, and hospitalization in adults: A systematic review and meta-analysis. *Annals of Internal Medicine*.

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Short Shots

English Push to Involve Girls and Women in Sports

Sport England has launched a new campaign, This Girl Can, to encourage women aged 14 to 40 to participate in sports. The idea was prompted by survey data showing that two million fewer women than men were participating, even though 75% of women expressed a desire to play sports more often. Responsibility for spearheading the campaign was assigned to ad agency FCB Inferno. It features 90-second TV spots with women (none of whom were models) playing sports to the tune of “Get Ur Freak On.” Posters distributed nationwide feature women from all walks of life with slogans such as “I jiggle, therefore I am,” “Hot and not bothered,” and “Sweating like a pig, feeling like a fox.”

Sport England launches fitness campaign to encourage women to take up sport and exercise. *The Guardian*, January 12

Cardio-Theaters On a Roll

In a never-ending quest for new members, fitness facilities have turned to Hollywood to help shore up their membership lists. Cardio theaters—rooms crammed with stationary bikes facing large screens—are now considered by many to be standard fare by captains of the fitness industry. Retro Fitness built a cardio theater in all 125 of its locations; Gold’s Gym captured the trademark Cardio Cinema and offers a theater in more than 100 of its locations. Gyms publish a movie schedule each month to attract customers. Often described as a new and inclusive approach to exercise,

cardio theaters allow overweight and body-shy clients to exercise in relative anonymity while watching a recent movie release. A woman told a *Wall Street Journal* reporter that she “likes how it’s dark and I don’t feel like everyone’s looking at me while I’m working out.” Most clients claim the movies distract them from the discomfort that often accompanies exercise, although some say they find it too difficult to continue exercising throughout a 90-minute movie.

Bacheman, R. January 28, 2015. What’s playing at the gym? *Wall Street Journal*. Video at www.youtube.com/watch?v=GrIHkr7mV1g.

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Cardio theater at Gold’s Gym.

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Short Shots

Joggers in the White House

The one-minute video opens with Vice President Biden entering the oval office where a president is hunched over his work. “Mr. President, are you ready to move?” asks Biden. “Absolutely,” says the president. “Let’s do this thing. Let’s move.” Together (usually with Biden deferentially trailing) they run through the White

House and over the grounds with jackets removed. The video is part of First Lady Michelle Obama’s Let’s Move campaign. After returning to the oval office, they hoist glasses of water with the president reminding viewers, “After a good workout, gotta drink up.” No word yet whether they plan to jog over to Capitol Hill.

Video [here](#)

High-Intensity Training Top Fitness Trend of the Year

Results of the 9th Annual ACSM Worldwide Survey of Fitness Trends for 2015 is now available. The report, spearheaded by Walter Thompson of Georgia State University, polled nearly 3,500 fitness professionals from the corporate, clinical, commercial, and community sectors regarding the most popular fitness trends. High-intensity interval training took over the top spot in 2015. The trend to hire educated, certified, and experienced fitness professionals, which held the top spot since 2008, tumbled to third. Body-weight training took the number 2 spot. Pilates, indoor cycling, stability ball, and balance training failed to appear in the list of top 20. Zumba has free-fallen from number 9 in 2012 to number 34 in 2015. The results of this annual survey are used by many in the health and fitness industry to make investment decisions for future growth and development.

See survey at http://journals.lww.com/acsm-healthfitness/fulltext/2014/11000/worldwide_survey_of_fitness_trends_for_2015.5.aspx.

-SJH



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Gifted Scientist, Teacher, Leader, and Special Human Being:

about Jack. Perhaps one of the best was written by a former student and colleague, Mike Joyner, MD. I have taken the liberty to borrow some of his tribute to add here. Mike wrote the following about how Jack was involved in the emergence of exercise science:

“Jack and a few key colleagues around the country and world realized that physical education, as it was known in the 1950s and 1960s, had to become more scientific and more intellectually rigorous. This led to a real flowering of what we now call exercise science or kinesiology at essentially all of the big research universities and other academic institutions in North America, and the developed world. This flowering led to the development of majors in related fields that have grown tremendously over the last 20 to 30 years. On many campuses, these major are now among the most popular science majors. They are also key “pipeline” majors for undergrads interested in graduate or professional training in a number of health-related fields. Very few people can say they participated in the broad based re-engineering of higher education on a worldwide basis but Jack Wilmore was a major player in this movement.”

Mike also wrote about how Jack was often on the cutting edge of research. He wrote the following:

“Jack was also at the forefront of a number of exercise-related research themes starting

in the 1960s. Here is a short list:

- Several pioneering studies and books on body composition that anticipated the obesity epidemic by several decades.
- Early studies on female athletes.
- Major contributions on topics related to adult fitness and cardiac rehabilitation. Like the story for body composition and obesity, these contributions were several decades ahead of the current concerns about the health consequences of physical inactivity on the population as a whole.
- The pioneering development of semi-automated and automated metabolic carts to measure oxygen intake. This was the first wave of innovation in this area and, again, Jack anticipated what came decades later with the automated commercial systems that are used all over the world today.
- Physiology studies that included topics such as human performance, thermoregulation, the physiology of maximal oxygen intake (VO_2max), and lactate threshold.
- The genetics of training adaptations as a principal investigator in the HERITAGE Family Study.

What about Jack as a person? Again, I am borrowing from what I wrote for the American

College of Sports Medicine.

Jack Wilmore was one of the kindest, most caring, moral, tolerant, and quietly effective and intellectual people I ever knew. When he talked, people listened because he might say something humorous, something he had been thinking about, or just something he felt strongly about. Everyone always enjoyed being with him and usually learned something.

In the past few years, Jack began having problems remembering things. He left early from the annual meeting of the American College of Sports Medicine two years ago and did not attend the last meeting in May. His reason was that he did not want to hurt anyone's feelings if he did not remember them. Their discomfort meant more to him than his own. That was the kind of gentleman he was.

About 11 years ago, Jack had to replace both heart valves. Last summer, they began to fail and it was decided that his heart was not strong enough for surgery. Fortunately, he had moved to the Phoenix area several years earlier to be near his daughters and grandchildren and so that they could help Dottie. He never wanted to be a burden on anyone.

He contributed so much to the world around him, to the profession he loved, and to me personally. The world has lost a special human being. The profession has lost a gifted scholar and teacher. I have lost a close and special friend. Rest in peace, my friend. The lives you touched are better because you were here.

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Back to the Future

results (Sumner et al. *BMJ* doi:10.1136/bmj.g7015) or misrepresentation of scholarly impact (Buela-Casal *EJPAL* doi:10.1016/j.ejpal.2014.06.005), but please help us wave the flag of kinesiology when you have advanced the field or its application in promoting physical activity. In addition to sending a summary of your work to your university's news service, dean, and provost, you can send a summary to the editor of *Kinesiology Today*.

Another way we need to be proactive in promoting the field is to be willing to talk to journalists reporting on issues in physical activity and sport as well as comment on the subsequent articles, columns, or blogs. One example is the January 12 Education column in the *Chronicle of Higher Education* on the elimination of physical education requirements in higher education. The good news is that the column contained quotes from kinesiology scholars from Oregon State and the University of Texas. We all know from experience this is not an easy or a pleasant task given the demands on journalists to keep things short or the

errors in quotation that often come from a lack of fact checking. I commented on this particular column and encouraged others to do so by e-mailing the AKA member institutions. We should not underestimate the importance of these anecdotal reminders. I have received more thanks and praise from university colleagues from a mention in the *New York Times* than from any award or scores of publications.

I want to thank the AKA staff, board of directors, and Dr. Greg Welk and the 2015 workshop planning committee for another outstanding set of meetings last month in Charlotte. A record number of colleagues met and discussed opportunities for kinesiology departments to partner with public health to promote physical activity. Many great ideas and programs of teaching, research, and service in physical activity promotion were discussed. Delegates came away with many ideas about collaborative community- and population-focused aspects of physical activity promotion. If you missed this meeting, the presentations will be posted on the AKA website along with other webinars organized by

the AKA. Several AKA officers and board members reported progress on the kinesiology instructional materials cataloged on www.merlot.org, a monograph series for kinesiology chairs, and issues related to Classification of Instructional Programs (CIP) codes.

Many of us got into the field of kinesiology because of a passion or joy in moving, helping others move, or making discoveries about movement and physical activity. Please consider sharing that passion for kinesiology with others through the AKA. Submit your achievements and research summaries to *Kinesiology Today*. Read, share, and discuss items in *Kinesiology Today* with your colleagues, students, and friends. The AKA is always looking for kinesiology department partners to join our cause, so invite a colleague from an institution not affiliated with AKA to join. Encourage and support faculty to serve on the AKA board or participate in the annual workshop. The 2016 workshop in San Antonio, Texas, is being planned. The topic will be innovation and entrepreneurship in a time of shrinking budgets.

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A Conversation With Rainer Martens

less FIELD” that was published in Quest. I listened to Roberta present that paper earlier at the then-NAKPEHE conference, and it resonated with me. I didn’t want to be homeless, and I didn’t want my many respected friends in kinesiology to be homeless.

I was attending the 2005 NAKPEHE meeting because the leadership of the association asked me to help them increase membership, which had dramatically declined from 1,500 in the 1970s to 200 in 2005. It was my opinion that NAKPEHE had not adapted to the changes in the field and had been supplanted by many other organizations, especially the subdiscipline associations in the field. In short it was less relevant. After listening to Roberta, I saw a way to help NAKPEHE become relevant, to increase membership, and to provide a home for kinesiologists. Working through a committee of the NAKPEHE leadership at the time, we prepared a proposal to restructure NAKPEHE to become what AKA is today. The proposal was rejected by the membership.

With influence from respected colleagues such as Roberta Rikli, Jerry Thomas, Waneen

Spirduso, I decided to bring a group together to see if we could create an association that would be a strong voice for kinesiology. Because of the success of Human Kinetics, Julie and I created the Human Kinetics Education Foundation and were able to provide the means to support the start-up of AKA.

SJH: One of the original purposes you and the planning committee had for AKA was for it to be an advocate for kinesiology. In what areas (political, higher education, general public, and so on) do you think advocacy for the field is most urgent, and what steps might AKA take to advocate?

M: I think AKA needs to advocate for the discipline of kinesiology with all national and international organizations that address issues concerning all academic disciplines. We need a seat at the table. We need our voice to be heard.

AKA, representing a significant number of higher education kinesiology departments, should advocate for those departments within universities, especially when a kinesiology program is threatened to be eliminated or merged with other units.

I also believe AKA should advocate for the

discipline to academic departments by developing an ongoing vision and strategy for the growth of the discipline and helping departments see how that vision affects their programs.

SJH: Kinesiology is in many respects a holding company for a variety of disciplines and professions. One hope for AKA was that it might bring some sense of unity to the field. Does the field look to you like it has become more unified or more diverse? Is this a good thing or a bad thing?

M: As stated earlier, I see kinesiology as one discipline and a number of professions use the knowledge bank from kinesiology. Those professions also use knowledge from other disciplines as well as experiential knowledge to develop their professional practices. The field—the discipline of kinesiology and associated professions—is much better understood today and thus there is a greater sense of unity.

SJH: Should we, as some have suggested, begin to call ourselves kinesiologists rather than exercise physiologists, biomechanists, and so on?

While I’m a strong advocate for the discipline of kinesiology and the use of that

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A Conversation With Rainer Martens

term, I'm in support of scholars referring to themselves by the various subdiscipline names. It communicates greater specificity of function and it doesn't detract, in my view, from the discipline in any way.

Clearly there is greater unity and clarity about kinesiology as a discipline, even though some may call the discipline something else, such as exercise science. The core content of the discipline, the recognition of the subdisciplines, and the application of knowledge from the discipline have clearly become better focused.

The diversity of the discipline is a separate question. I think it is more diverse. Kinesiology is branching out and developing exciting links with other disciplines creating promising new subdisciplines and sub-subdisciplines. It's all good!

How close has AKA come to meeting your original hopes and aspirations? What has it done well, and what remains to be done?

Thank you for asking this question. No one has asked it of me since the founding of AKA. I'm happy that AKA has 150 institutional members, but I think we should have

400. We need the other 250 departments to add strength to the voice of kinesiology.

I'm pleased to see the work of the AKA leadership and its members in developing resources in the form of publications and leadership workshops to help kinesiology departments improve their programs. I applaud the work done by those of you who have contributed to these activities.

What I have not seen, recognizing that I've not been close to the work of AKA recently, is seeking out and representing kinesiology on the national and international stage. I'm unable to be specific about my wish here, but I know that in general we're not at the table when academic disciplines rate themselves and lobby for higher education. In short, AKA is providing valuable service to kinesiology departments, which is an internal focus. What I hope to see with AKA is a greater external focus, making the voice of kinesiology heard with our peer disciplines.

SJH: Compared to other disciplines kinesiology is still a fairly young field, having come into full flourish only over the last half century. As we have grown, we have also become more compartmentalized into specialized areas. Has this been a good thing for our field?

M: I think the way we have divided the knowledge categories all in all is a good thing. It is the nature of disciplines to fractionate into smaller clusters, with each cluster becoming deeper and narrower. As long as those who work in these fields don't lose sight of their larger disciplinary home, I believe it strengthens, not weakens, the field. In many ways specialization that has led to advances in physical activity research that in turn has boosted the reputation of our field.

SJH: Over the past few decades there are signs that many kinesiology departments have narrowed their focus to biological concerns (exercise physiology, fitness, athletic training) and away from the comprehensive model brought into being in the '60s that included motor development, control and learning, sport history, and sport sociology. Do you think this is true, and if so, does it worry you?

M: Maybe I haven't been close enough to the discipline in recent years to see this. I do think it would be unhealthy for kinesiology to define itself in this narrow way. We have noticed a decreased market for books in such areas as sport philosophy, sport history, and sport sociology. Maybe it is because colleges and universities are deemphasizing the liberal arts, maybe it

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A Conversation With Rainer Martens

is because interest has soared more in subjects students see as more applicable, or maybe it is because scholars in these subdisciplines haven't shown the relevance of their subdisciplines to the discipline of kinesiology or the associated professions. I believe sport history, philosophy, and sociology are important, and the scholars in these subdisciplines need to do better in showing their relevance.

SJH: Physical activity has become a hot research topic not just in kinesiology but in public health, epidemiology, psychology, and child development, to name a few disciplines. Scholars in kinesiology often enjoy joint appointments in these areas, and departments often hire faculty who have little background in kinesiology. Any concerns here?

M: Kinesiology faculty, like faculty in other areas, tend to go where their research leads them. I'm positive about kinesiology faculty collaborating with other disciplines and faculty from other disciplines seeking to collaborate with kinesiologists. We should want this to happen, to encourage it, to support it. Where I become concerned is when kinesiology faculty cross the line so that they are no longer studying our

subject matter from the other disciplines' perspective but are using physical activity only as a means to understand the subject matter of the other discipline. I guess faculty have a right to make that choice, but kinesiology departments should not be supporting that faculty member.

I don't think hiring faculty from other disciplines happens a lot, although it does happen. I don't see it is a major concern; most people in kinesiology find it a great home base and are comfortable in it.

SJH: What is your general assessment of the status of the field of kinesiology today?

M: What a change over the last 50 years! Young professionals would not believe how muddled our thinking was about the discipline and professions in the past. That's behind us and we have an exciting discipline that benefits many professions. (Find information about those professions on the AKA website.) Kinesiology is a popular major at higher education institutions today, partly because of our subject matter and partly because kinesiology is a foundation for training in many professions. The role of physical activity in our society

is more prominent than ever. We love our sports and recreational activities and we recognize as never before the value of physical activity for health. We have an enormous opportunity to contribute to the well-being of humankind.

See another interview with Rainer on Illinois pioneers at <http://will.illinois.edu/illinois/pioneers/program/human-kinetics-founder-rainer-martens>.

Research Initiative Focuses on Women's Football

The Program for the Advancement of Girls and Women in Sport and Physical Activity in the Center for Women's Health and Wellness UNCG has been named the research arm for the Independent Women's Football League and its foundation. The semiprofessional tackle football league will provide \$60,000 over three years to begin an active research agenda, including groundbreaking studies on female athletes and concussion in collision sports.

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Keeping the Ball Rolling: Continuing to Address Issues of Diversity and Inclusion in Kinesiology

American-serving institutions to the annual meetings. Taking the steps to reach out and invite representatives can prove particularly instrumental in attracting new member institutions and subsequently diverse participants to the organization.

4. *Prepare* the future generation of kinesiology faculty and administrative leadership by supporting the participation of students at the annual meeting. A great example of such an initiative is the American College of Sports Medicine's (ACSM) Leadership and Diversity Training Program. Supporting student participation, particularly students from diverse ethnic back-

grounds, at the workshop would allow them the opportunity to network with future employers, meet potential career mentors and advisors, and gain a deeper understanding of the decision-making processes behind the initiatives that directly affect the professional ranks they are preparing to enter.

5. Invest in the next generation of administrative leadership by continuing to provide opportunities such as this year's excellent pre-workshop session Effective Strategies for Assuming Academic Leadership Positions facilitated by Drs. T. Gilmour Reeve and Lanie Dornier. Being able to obtain insider information via discussions about the rigor and appropriate means of preparing for administration is invaluable to many assistant- and associate-level faculty who aspire

to be administrators. Providing a similar formatted event centered on issues of recruitment and retention of diverse student, faculty, and leadership would be greatly beneficial to our membership.

The diversity committee, under the leadership of Dr. Doris Corbett, is an example of AKA's commitment to providing its membership with meaningful information and resources that assist in efforts to promote awareness of diversity and inclusion. I ask that the AKA membership join me in developing a dialogue focusing on increasing the representation of diversity among kinesiology students, faculty, and leadership. It will take a group effort to keep the ball rolling, sustain the momentum of the 2013 meeting, and continue to realize AKA's commitment to diversity and inclusion.

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Ready, Set, Have Fun

that it has turned into a huge annual event that now draws almost 8,000 runners. The running portion is 5 miles total from campus to the doughnut-eating station. To officially complete the challenge, you must present your empty doughnut box at the finish line an hour or less after you started. Prizes are awarded to the top finisher as well as to those with the best costumes and most funds raised. "I'm always impressed at the creativity of the costumes," said Brandon Honeycutt, this year's executive director for the race.

The race attracts all levels of racers and doughnut eaters. Doughnut eating is sometimes the most difficult part of the challenge, according to participants. Various doughnut-eating techniques are implemented by the runners. There's the accordion method, where the eater smashes several doughnuts into one large pastry and shoves them all down together. Others try to wet the doughnuts to aid in swallowing speed. Participants in the casual category, who are not trying to complete the one-hour time limit, can take their time and enjoy the full pleasure of sugary goodness from the doughnuts. Racers consume about 2,400 calories but burn only about 500 during the race portion. "It is the satisfaction of knowing you have completed the craziest race in the world," said

Mau, whose father holds the record for the fastest time in the Krispy Kreme Challenge.

For another tasty trek, try the 5K Twinkie Run in Ann Arbor, Michigan, held on April Fools' Day. This race is back in full flavor after a brief Twinkie shortage a couple of years ago. Organizers used fake Twinkies from Canada during the Hostess scandal, but they just weren't the same, according to race director Joel Dalton, from Active for ALS. The rules for this race involve eating a Twinkie at the beginning of the race and one more halfway through the race. Runners who eat both Twinkies get two minutes off their official race time. Dalton says this gives the serious runners extra incentive to participate in the eating challenge. "That actually makes for some of the funniest moments, watching these serious runners trying to choke down the Twinkies," said Dalton.

More excitement is cooked

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Twinkie Run



Twinkie Run

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Ready, Set, Have Fun

up with the homemade Twinkie contest held during the race. "They are nothing like real Twinkies, except for the shape," Dalton said. Some standout flavors have been potato Twinkies with butter filling, a vegan variety, and Jamaican rum-raisin-cocoa Twinkies.

So what attracts people to these crazy races, besides just plain fun? It's all for a good cause. Destination Races works with national, regional, and local charities through all six of their race locations in wine country. Dockstader says it also stimulates local economies and the wine industry, with the addition of a whole weekend of activities related to the race.

The Twinkie Run is organized by Active for ALS, an organization of active lifestyle enthusiasts who sponsor active challenges to raise money for ALS research. The Twinkie Run was started by Shawn Jyawook to honor his friend Jim Mong, who died of ALS and loved Twinkies. The Active for ALS organization took it over and has built up the race to more than 500 runners and is about to outgrow the park it is held in. One hundred percent of the profits from the race go to ALS research "Each year we donate our money to a specific project that might not get funding otherwise," said Dalton. "When you're dealing with a horrible disease like ALS, the message is live for today!"

The North Carolina Children's Hospital has been the benefactor of over \$750,000 from the Krispy Kreme Challenge. The Park Scholars, a merit-based student group at North Carolina State, took over the unofficial challenge 11 years ago and has increased the number of participants from 10 to 7,500. The Children's Hospital sends a current or former patient to the race as an ambassador to remind people where their money is going. The race organizers also get a special visit to the hospital to see how their contributions are affecting patients' lives. "That's the sweetest part about it," said Mau, a Park Scholar and former race director.

All of the organizers say adding fun elements to their races has really helped them attract more runners of all levels and also many more spectators who want to enjoy the excitement surrounding the events. Dockstader says he has found people are looking for a total cultural experience, not just a running event anymore.

CONFERENCE

Promoting Athlete Well-Being from Youth Sport to Elite Competition

April 23-25, 2015 at State College, Pennsylvania

[Registration is now open!](#)

The conference is designed to identify best practices and other solutions to the physical, social, psychological, and educational risks faced by athletes. Sessions will be devoted to the following topics:

- Youth sport, parental involvement, proper coaching behavior
- Concussions, injuries from overuse
- Psychological risks, early specialization, burnout
- Physiological and social issues unique to girls' and women's sport
- Drug use, other forms of performance enhancement
- Educational challenges, time devoted to athletics, eligibility standards

Sponsored by USADA, Penn State Athletics, and the College of Health and Human Development

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Revisiting President Obama's "Girlie" Throw

the body throughout the throw.

With the advance of women's sports, models abound of girls and women whose throwing action is nearly indistinguishable from that of experienced males, but as the public reaction to the Obama and Clinton throws suggests, the notion that bad throws are "girl throws" continues to hold sway in many quarters. Thirteen-year old pitcher Mo'Ne Davis' stellar performance in the 2014 Little League World Series might have jarred those holding such views, but the issue of whether girls adopt (generally) a distinctive style of throwing remains somewhat unresolved.

Do girls underperform boys in terms of throwing distance and velocity? Do their throwing patterns differ from those of boys?



Mo'Ne Davis. Credit: NBC News

If one is talking about average performances, the answers are yes and yes. Plenty of studies have shown, for example, that boys outperform girls not only in terms of throwing velocity and distance but in the kinematic patterns used to project the ball. Substantial differences, which begin to appear in all cultures at a fairly early age, increase as girls get older.

Feminist psychologist Janet Hyde, professor of psychology and women's studies at the University of Wisconsin, whose gender similarities hypothesis predicts that males and females are more alike than different, has found that gender differences in a host of traits are not nearly as large as most people think. Still, she acknowledges that some gender differences are observable, but none of these are as striking as differences in throwing distance and throwing velocity.

The big question is why? One of the earliest researchers to ask this question was famed anthropologist Levi-Strauss. A half-century ago he described in great detail differences in throwing patterns used by 5-year-old boys and girls. And because the differences made their appearance at such an early age, he ruled out any differences that might be attributed to practice. They seem to be, said Levi-Strauss, due to a mysterious, inexplicable "feminine attitude." In Levi-Strauss' view, the throwing

patterns seen in girls were largely fixed and immutable. Several years later (1980) in a highly circulated paper published in *Human Events*, feminist philosopher Iris Young dismissed Strauss' theory, denying his notion that girls' throwing patterns were determined by biology, even doubting that the differences seen in throwing between boys and girls could be explained entirely by variations in experience.

Instead, she proposed differences were due to the particular "situation" of women "as conditioned by their sexist oppression in contemporary society." Young believed women move differently not only in throwing but in most forms of bodily comportment—hitting, climbing, walking, and running—and especially in motor acts requiring skill. Girls, she said, are taught to move their bodies in most walks of life "like a girl"—timidly, less open and free, and with a high degree of uncertainty, all of which find expression in their throwing performances. But compelling as such arguments might be, they fail to explain why differences in throwing patterns can appear very early in life before societal influences can be brought to bear.

The most popular street-corner explanation is that boys simply have more experience throwing than girls because society offers boys many more opportunities to engage in throwing. (Even President Obama told

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Revisiting President Obama's "Girlie" Throw

reporters that he didn't have much experience playing ball when he was young.) But if experience is the key element, why are differences so pronounced in children as young as age 4?

The most recent attempt to shed light on the questions is a study by Jerry Thomas, whose data Hyde has relied on in her work. Thomas is professor of kinesiology and dean of the School of Education at the University of North Texas and charter president of AKA. Thomas and his colleagues examined the throwing performance (horizontal velocity and throwing kinematics) of 6-, 8-, and 10-year-old Australian aboriginal children. Aboriginals were chosen in an effort to limit effects of different levels of experience. Aboriginal children tend to be isolated socially and not engage in many sports involving throwing, although throwing is common among men and women and children who use boomerangs when hunting. Thus Thomas predicted that differences would not be as great as those found in children of other cultures.

And that is what he found. Still, gender differences in mechanics and ball velocity were observed, but they were not as pronounced in the aboriginal children as in children from other cultures. Some girls threw

as effectively and efficiently as boys. Generally, the girls did not externally rotate the shoulder as much as boys. They had less lag in the throwing hand and threw with a less extended arm at release.

As to what might be responsible for these differences, Thomas can only speculate. He says perhaps it is due to experience after all. "If most American fathers saw their sons throw like Obama, they probably would work with them to develop their throwing patterns. But if they saw their daughters throw that way, they probably wouldn't bother. Girls can throw as effectively as boys, but they need to start early and continue doing it." Remember, he said, "Not all boys become good throwers and not all are better throwers than girls, but on average boys are better at this skill."

As to other underlying causes, Thomas speculated that the answer may be neurological, the result of evolutionary changes rooted in the roles men and women played in traditional societies. Men used spears to hunt while women took care of children. "And in the relatively short period of 200 years of European settlement affecting the Australian indigenous culture, nature and nurture



Erin DiMeglio, South Plantation High School, Florida, 2013.

influences may have been less pronounced than that found in other cultures." He also wonders if anatomical differences may play a role. "Boys," he notes, "have longer arms that give them some advantage in terms of throwing velocity but probably not a substantial enough advantage to account for the performance differences we see."

Thomas is aware that explanations based on sex can lead to unfortunate stereotypes. "When you see a young woman like Mo' Ne Davis and you're in my field, it just makes you really happy because we've promoted our whole career for equal opportunity for women in sports and we're seeing more and more of it. When you see a young woman who can perform like that, it makes you really proud."

What seems very clear is that the dif-

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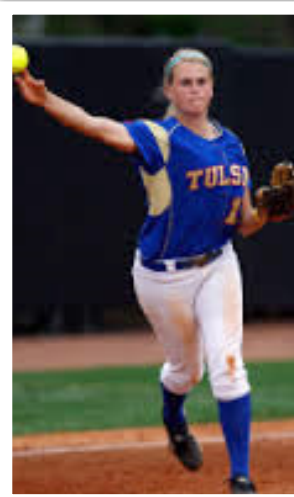
Revisiting President Obama's "Girlie" Throw

ferences observed by researchers are not applicable to all girls. It is becoming more common to see girls throw not "like a man" but the way any skilled thrower should throw. Examples include University of Tulsa softball standout Jill Barrett and Erin DiMeglio, who in 2012 became the first girl to quarterback a high school team.

Such examples, along with Davis' dazzling Little League World Series performance, has led many to avoid using the phrase "throwing like a girl." Davis hints that she sees nothing wrong in the phrase. She told a reporter, "I throw it 70 miles an hour; that's throwing it like a girl."

See analysis of Mo'Ne's pitch at <http://espn.go.com/espnw/video/11352094/mone-davis>.

-SJH



Jill Barrett, University of Tulsa, in 2013.

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Milestones

turn 99 in June. "I'm getting older but I'm not getting old," said Gigl, whose half-hour class includes push-ups against a wall and weightlifting with soup cans to "In the Mood" and other big band tunes.

In St. Paul 100-year-old Lauretta Taggart has been teaching an exercise class at Riverview Highlands Senior Apartments for 15 years. She says she refuses to allow age to slow her down. Asked what she attributed to her long life, she said, "Moderation, attitude, and gratitude." Lauretta also keeps connected with family and friends on Facebook, orders books on Amazon, and plays a lot of bridge when she's not exercising.

Video of Loretta teaching class [here](#).

¹Barber, S.E. Levels and patterns of daily physical activity and sedentary behavior measured objectively in older care home residents in the United Kingdom. *Journal of Aging and Physical Activity*, January, Vol 23 (1).

Redefining a Handicap in Golf

John Graper sounds like the typical golfer with a 25 handicap: "I should be somewhere between a 14 and 16 handicap. I know how I can hit the ball, but the way I look at it, I just make too many mistakes

out there." Well, his handicap actually is greater than 25. How about no left arm . . . and a prosthetic left leg? Both are the result of a motorcycle accident in 1971. He hits the ball back-handed with his right arm from a lefty stance. He drives the ball fairly accurately to about 180 yards. "I love the game, I really do," says Graper.

Video [here](#)



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The Real Skinny on Abs: Traditional Crunch Versus Exercise Machines for Strength Training

are activated simultaneously—whatever the claims, exercise equipment cannot effectively target one area over the other.

The study engaged 16 participants between the ages of 18 and 24; 14 participants produced complete data, testing all 9 of the exercises for muscle activation. Measurements were taken with electromyography of the upper and lower rectus abdominis, the external obliques, and the rectus femoris, using each participant's maximum voluntary contraction as a baseline.

Eddie Stenger is an exercise physiologist at Gundersen Health System in LaCrosse and first author on the study. He cautions that the appropriateness of an exercise to an individual's health and fitness level—along with comfort and personal motivation—is really the first considerations in



Eddie Stenger

determining the best ab exercise.

"In reality, there isn't one form of abdominal exercise that is best for everyone, and it's really good to have variety," Stenger stresses. "The yoga boat pose, the decline-bench curl-up, the front plank—while other exercises aren't statistically better than the traditional crunch, they're still good."

As for working the external obliques, the straight up-and-down motion of a properly executed traditional crunch isn't particularly effective. Here the traditional crunch came in seventh, behind the Ab Wheel, decline-bench curl-up, Ab Straps, Ab Coaster, captain's chair crunch, and the Perfect Sit-Up, respectively.

"An exercise must twist the torso to engage the obliques," comments Stenger. "Engaging in a variety of exercises is beneficial and may prove more enjoyable and keep people more engaged."

Proper form is vital to seeing results with any abdominal exercise. For the traditional crunch, that means lying on the back with the feet flat on the floor, knees bent 90 degrees, hands folded over the chest, and abdominals actively contracted, curling up and down at a slow, controlled

speed—about 1.5 seconds up and 1.5 seconds down. In the raised position, the head, neck, and shoulder blades are just off the floor.

"As your body acclimates to traditional crunches, you can increase repetitions and sets or introduce some other abdominal exercises to your routine," suggests Stenger. "Of course, it's also important to remember your muscles need to rest between workouts. You can't work on abs every day or you will be tearing down muscle fiber."

Can exercise devices help? Yes. But again, proper form is key.

"In the end, if a machine keeps someone motivated and they continue to exercise, that's going to be a good thing, asserts Stenger. "The traditional crunch performed best in our study, but that's not saying that the traditional crunch is the only exercise out there. You have to listen to your body and figure out what's best for you."

Stenger, who works with older adults and in particular with cardiac or pulmonary rehabilitation patients, favors the stability ball crunch in his practice.

"The biggest thing we learned is that you don't have to spend a lot of money on equip-

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The Real Skinny on Abs: Traditional Crunch Versus Exercise Machines for Strength Training

ment to work out the abdominals. Looking at the effectiveness of specific exercises, we found the decline-bench curl-up with knees stationary or the stability ball crunch came closest to the traditional crunch.

"Among the machines, the Perfect Sit-Up is very easy to use. It perfectly mimics the crunch and clicks when you go as far as you are supposed to, but it's on the floor, which will be limiting for some people. The Ab Lounge didn't perform significantly lower than a traditional crunch, and some will find it more comfortable to use."

Stenger encourages individuals to seek more specific advice from a doctor, an exercise physiologist, or a physical therapist.

For those more concerned with the cosmetic appearance of the midriff, Stenger has this advice:

"Some people are going to be enticed by the advertising with beautiful models that promises shredded abs in just five minutes

a day. It's not true, and the developers of one exercise machine we tested, the Ab Circle Pro, were sued for making false promises. For one thing, fat tissue hides the abs, and ab training won't make you lose weight. And you still need to get out and bike or walk—you still need aerobic exercise for good health."

Journal of Physical Activity and Health Now Published Monthly

Now in its 12th year, the Journal of Physical Activity and Health has announced that it will now publish an issue monthly, allowing it to disseminate more timely research as well as reduce the amount of time from article acceptance to press. The journal has an impact factor of 1.863.

www.changemag.org/Archives/Back%20Issues/2014/January-February%202014/cultivating_full.html

Two Worthy Broadcasts on Walking

The CBC has produced Ideas on Walking, a two-part look at walking, from its evolution to what it means to us: part I, "I Walk, Therefore I Am," and part II, "The Steps We Take." While much of the program involves producers of the program, interesting comments come from a professor of biomedical engineering and a professor of anthropology.

<http://www.cbc.ca/ideas/episodes/2014/03/12/walking-matters-part-1>

<http://www.cbc.ca/ideas/episodes/2014/03/19/walking-matters-part-2>

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