The American Kinesiology Association (AKA) recognizes the core principles of Inclusive Excellence as a demonstration of an academic unit’s sustained, impactful, comprehensive, and intentional commitment to diversity and inclusion. As stated in the award’s description, “the American Kinesiology Association (AKA) believes that inclusive excellence exemplifies an organization’s commitment to efforts that promote both diversity and inclusion with the goal of creating a working and learning environment that encourages varied perspectives and an open exchange of ideas in an unbiased and non-prejudicial way. An organization’s commitment to inclusive excellence is best demonstrated by the strategic, comprehensive, and sustained infusion of diversity and inclusion efforts into the central functions of the academic unit (e.g., recruitment and retention practices, hiring processes, curriculum development, administrative structure, etc.).”

More directly, inclusive excellence pertains to academic units, calls for the strategic implementation of administrative, instructional, research, outreach, and service programming that advances diversity, inclusion, equity, and social justice efforts.

To that end, the AKA Inclusive Excellence Award annually recognizes a member
The University of Hawaii at Hilo’s (UHH) Kinesiology & Exercise Sciences Department as the recipient of the 2020 Inclusive Excellence Award. It was clear from their application the department’s and institution’s sustained commitment to indigenous education, social justice, and inclusive excellence.

The Inclusive Excellence Award’s application requires that evidence is provided of the unit’s promotion, development, and support of inclusive excellence principles via means including but not limited to: implementation of innovative curricula, services that advances diversity, inclusion, and social justice efforts, formal and informal structures that provide mentorship to underrepresented and/or marginalized students, and administrative practices that provide access and equitable treatment of all constituents of a respective academic unit. Noteworthy KES activities and programming include:

1. The University of Hawaii at Hilo (UHH) was ranked #1 in campus ethnic diversity by The U.S. News & World Report’s Best Colleges rankings of 2020. The KES Department has one of the most diverse academic units with a Diversity Index (based on ethnicity) score of 84% (higher than the UHH’s score of 76%).

2. The KES department was the first at the institution to include as a qualification for all positions that the applicant provides evidence of working with diverse populations.

3. KES faculty have developed and sustained a number of international research collaborations with faculty from institutions in Germany and Australia as well as locally with faculty at the Hawai‘i Community College. These collaborations have allowed for a more expansive investigation of physical activity across mono and multi-ethnic populations.

4. KES faculty, have effectively infused aspects of Hawaiian cultural perspectives into academic courses and student support recruitment, onboarding, retention, and advancement processes.

5. KES faculty, as part of university-wide efforts such as the ‘Ike A‘o (to seek knowledge) – UH-Hilo Teaching Seminar, engaged in a curriculum review and revision process that not only incorporated a Hawaiian worldview into coursework but also provided sustained faculty development and support.

6. The KES department, along with local charter schools and the Hui Mālama Ola Nā ‘Ōiwi (the Native Hawaiian Community Health Education Services) provides extensive outreach and community engagement programming, including the implementation of programs such as the “Zones of Innovation”, E ‘Imi Kou Ala – Exploring Mayor Pathways to UHH Program, and Hilo Reigns - Hawai‘i High School Counselors Program, that provides services to students, particularly those from marginalized and underrepresented populations.

Dr. Harald Barkhoff, department chair, accepted the award on behalf of the unit’s administrators, faculty, staff, and students. Congratulations to Dr. Barkhoff and the Kinesiology and Exercise Sciences Department.
Words Have Meaning

By Penny McCullagh, Ph.D., KT Editor

If you have ever chatted with individuals who studied with Franklin Henry (who was a primary proponent of our academic discipline of Kinesiology), you will hear them say that Dr. Henry was tough on his students and wanted to make sure they used terms correctly. He was known to say “words have meaning”.

In 2009, Shirl Hoffman (former Editor of KT), used the Tower of Babel as a metaphor for the knowledge base and terminology used in Kinesiology. The biblical story suggests that following the great flood, people with a common language decided to build a tower that would reach heaven. God was apparently angry with the people because of their pride and scattered them around the country and gave them different languages so they could not understand each other. While Hoffman does not think Kinesiology is building a tower, he suggests our discipline has created so many languages and our sub-disciplines use so many different approaches that we find it difficult to communicate with each other. Furthermore, more than 10 years ago he suggested that like psychology, we should create a glossary of kinesiology that would be available online and would help not only professionals, but also students and lay people understand our field a little better.

Ten years later, Duane Knudson follows up with Hoffman’s notion and suggests that “much of the lack of identity and progress of kinesiology, as a leader in the study of human physical activity may result from inconsistent nomenclature” (p. 42). He references a fabulous article that should be required reading for all, by Forscher (1963). And it is only one page long! In the article, Forscher makes an analogy of how so much research emphasis is on building individual facts (bricks) but that bricks often have no relationships with each other and cannot help structure a strong edifice (theory). Knudson suggests that kinesiology has gone down that same road.

He brings up a number of specific examples of how nomenclature is misused in the literature across many of our sub-disciplines. Duane is a biomechanist so he even chose examples from his own field. He notes that terms such as force, impulse, and interpreting power with causative properties are often misused, and lead to inaccurate interpretations and knowledge development. Another example is the use of the word “learning”. Researchers in motor learning have established criteria for determining whether learning has occurred, but even in scientific publications, the term is sometimes used incorrectly in referring to performance rather than change measures. He argues that research that is published with the vague or inaccurate terminology is devastating to our field and hampers our ability as a discipline to contribute to interdisciplinary research. He provides some
He suggested three strategies that could help alleviate some of the problems:

1. Kinesiology professional organizations should establish standards for nomenclature and he provides a number of examples of how this might occur.

2. Editorial boards of journals should require authors to use the standard nomenclature that is developed.

3. Individual scholars should strive to adhere to the standards developed. Some words do have meaning and we need to use them correctly!


Response:

I would like to thank Dr. McCullagh for the opportunity for a brief response to her column regarding my article in *Quest*. I hope many KT readers will be familiar or will become familiar with Forscher’s (1963) paper. The importance of clear use of scientific terms reviewed in Knudson (2019) remains vitally important not just in biomechanics (Vigotsky, Zelik, Lake, & Hinrichs, 2019), but all scientific fields including Kinesiology. Words do have multiple meanings, but certain ones with standardized SI or Kinesiology-specific definitions should not be routinely used incorrectly in scientific journals.

To extend Dr. McCullagh’s illustration of building the knowledge “road” of kinesiology let me say: Kinesiology cannot efficiently build this interdisciplinary road if the scholars having to build this road must search through an enormous pile of bricks (terms and results) with different/unclear meanings. This is especially true today given scholars and students have access to efficient search engines that often point to strong research, but also to weak or even erroneous research published in predatory/deceptive journals.

Duane Knudson, PhD, FNAK, FISBS, FACSM, RFSA
President, International Society of Biomechanics in Sports
Past-President, American Kinesiology Association


Annotation: The title of this article is misleading since the thesis and example errors explored by the authors is not limited to sports biomechanics. It is, unfortunately, not uncommon to have biomechanics research published in a variety of journals and fields with these errors in mechanical terms. See the numerous citations and examples in this paper and in Knudson (2019).
Can Self-Efficacy Hold the Key to Breaking Barriers?

By Patrick Wade, KT Staff Writer

On a Saturday morning in Vienna, under ideal conditions engineered for exactly this type of feat, Eliud Kipchoge of Kenya ran 26.2 miles faster than any known human ever had. Faster, in fact, than anyone thought a human could. One hour, 59 minutes and 40 seconds. But don’t expect to see that time in the record books. The run was carefully designed to make history, with Kipchoge on a flat course competing only against himself and the clock, and assisted by a rotating crew of pace setters. The manipulated race setting precluded it from counting as an official run.

“No Human Is Limited” was the marketing tagline for the run called the INEOS 1:59 Challenge, which references the event’s title sponsor, a U.K.-based chemicals company. Kipchoge is no doubt the fastest marathoner of modern times. He holds the two fastest official marathon times ever recorded, including the world record of 2:01:39 – which he completed in three minutes and 59.4 seconds.

Bannister was the first person to ever break the four-minute barrier for the mile distance. Another 1,400 athletes have done it since. A quick look at the progression of official mile times shows what can happen in the wake of a major achievement. Bannister’s 3:59 mile record stood for only about a month until a second runner, John Landy, ran a 3:58 mile. Within three years, 17 total runners had broken the four-minute mark. Today, the world record stands at 3:43.

The idea that “No Human Is Limited” may have more substance to it than a simple marketing ploy – if it happened at the mile distance, could Kipchoge’s 1:59 marathon be a sign of records to come?

Deborah Feltz is a professor in the Department of Kinesiology at Michigan State University, and her research focuses largely on understanding self-efficacy and its relationships to motivation and performance in sports and exercise. “Self-efficacy is basically a person’s belief that they can successfully accomplish an action to achieve a goal,” Feltz said. “It is a goal-striving belief that is specific to a distinct domain of functioning rather than representing an overall global trait. I like to think of it as specific self-confidence.”

Roger Bannister’s achievement offers an example. Feltz said that those who have written about Bannister’s achievement mention that he visualized his goal, which acted as a source of self-efficacy. Once Bannister broke the barrier, it may have broken a psychological barrier for other runners who then used his achievement to bolster their own confidence that they could do it too.

“Albert Bandura, developed self-efficacy theory and calls this a vicarious source of efficacy information,” Feltz said. “Vicarious experiences are sources of efficacy information based on gaining information from observing others and comparing one’s own capabilities to those observed.”

Of course, confidence alone will not
help just anyone run a marathon in under two hours – Kipchoge is an elite athlete with exceptional talent. And it is largely technology and training advances that help professional athletes continue to break records. But self-efficacy can play a role in breaking psychological barriers for average athletes as well.

Bandura discusses four sources of efficacy information: an individual’s previous accomplishments, vicarious experiences, self-persuasion or praise by others, and the athlete’s physiological and emotional condition.

Bannister’s visualization of his goal is a self-persuasive source of self-efficacy, Feltz said. The runners who watched him do it may have used that experience as a vicarious source of self-efficacy to build their own confidence. If he could do it, why couldn’t they?

An athlete’s own performance accomplishments are the most dependable source of self-efficacy, so employing strategies to ensure performance success are important. “But just ensuring success by achieving easy goals won’t lead to enhanced confidence,” Feltz said. “We have to believe our successes were earned through our own efforts.” To do that, she added, an athlete should set multiple, reasonably-challenging goals, make them proximal, and monitor progress.

Vicarious-based strategies may include but are not limited to watching others’ achievements. Another strategy Feltz suggested is finding an exercise partner of comparable ability and challenging each other. “But beginning exercisers should avoid comparisons to others because the process of making comparisons – and the results of some of the comparisons – may actually lower their confidence beliefs,” Feltz said. “They should focus more on their own progress.”

Finding an exercise group can help support your goals and provide persuasive self-efficacy information. “Having a coach or trainer will help keep you accountable, not to mention help you perform exercises correctly and safely,” Feltz said.

Distractions can help, too. If you focus on your fatigue and believe you are too tired to persevere, it can cause lower judgements of self-efficacy. Instead, an athlete can redirect their focus with positive self-talk, like telling themselves they are more than halfway there or “I can do this.” Just don’t ignore serious pain.

Feltz includes an entire chapter on strategies to enhance self-efficacy in her book titled, Self-efficacy in sport: Research and strategies for working with athletes, teams and coaches.

While the average athlete is not going to run a 2-hour marathon on self-confidence alone, athletes at any skill level can use these strategies to reach their personal goals. “Our efficacy beliefs determine the challenges we undertake, the effort we expend in the activity, and our perseverance in the face of difficulties,” Feltz said. “For instance, if we have high levels of self-efficacy that we can adhere to a weight training program on a regular basis, we are more likely to take up this activity and to persevere in the face of other time demands than if we not very confident that we could adhere to this type of training.”


In recent KT editions, we’ve taken a closer dive into five of the nine societal sectors within the National Physical Activity Plan (NPAP), including 1) Business and Industry, 2) Community, Recreation, Fitness, and Parks, and 3) Education, 4) Faith-Based Settings, and 5) Healthcare. This issue will focus on the Mass Media sector.

As we embark upon a Presidential Election year, the term “mass media” is being used in a variety of ways – and not always good. Irrespective of your political view, there is much skepticism of the media by both the right and left political sectors. This is unfortunate because “mass media” campaigns have been effective platforms for influencing attitudes and beliefs – as well as behavior change – in areas outside of politics that we can all agree are good for society. As an example, mass media campaigns to promote smoking cessation were transformative in the United States. While there is some evidence of effective mass media campaigns promoting physical activity, we still have a long way to go as physical activity levels continue to decline, particularly in our youth.

The Mass Media sector of the NPAP includes the following key strategies:

1. Government health agencies, in collaboration with national non-profit health organizations, should launch a national physical activity campaign to education individuals about effective behavioral strategies for increasing physical activity.

2. Physical activity professionals should partner with communications experts to develop mass communication messages and a standardized “brand” for promoting physical activity that is consistent with current federal physical activity guidelines.

3. Professionals in physical activity and public health should inform mass media professionals about the effects of physical activity on health and on effective strategies for increasing physical activity at the individual and community levels.

4. Professionals in physical activity and public health should optimize application of social media and emerging technologies in media campaigns to promote physical activity.

In the age of Twitter and other social media platforms, it is going to take a lot of creativity. More importantly, it is going to take infusion of new leadership in organizations, such as AKA, who embrace social media and can tap into the full potential of these sources. As I write this from the 2020 AKA Leadership Workshop, I can’t help but look around and see lots of that emerging leadership – which gives me hope! To learn more about the mass media sector, and specific tactics associated with the key strategies, visit this link.

Please continue to join me for quarterly reviews of the NPAP societal sectors over the next several issues of KT, and attempt to incorporate applicable tactics into your individual, organizational, student service, and community outreach goals.

Full access to the NPAP can be accessed via the following link.
American Kinesiology Association promotes and enhances kinesiology as a unified field of study and advances its many applications. That is, AKA acknowledges that the study of physical activity may be approached from numerous different perspectives and all who study physical activity regardless of the perspective are engaged in kinesiology.

Because AKA represents kinesiology from a broad perspective, AKA is often contacted by individuals who want to know more about kinesiology, its different areas of interest, who are the experts on specific topics, and the various degree and employment opportunities in kinesiology. We answer these kinds of questions from a broad perspective and will forward specific questions to those who would be better qualified to answer those kinds of questions.

Recently, an individual contacted AKA to learn more about kinesiology and degree programs in our discipline. The initial email request was to schedule a 15 minute call with someone at AKA to answer a few questions about kinesiology. I agreed to talk with the individual with the understanding that his questions might need to be directed to others in kinesiology. As the conversation began, his questions were typical ones such as “what is kinesiology” and “what are the kinds of opportunities for study and employment in kinesiology”. The conversation shifted from asking for more information to expressing frustration with his experiences when talking to others about kinesiology. He explained that he had a bachelor's degree in rehabilitation science and two master's degrees in different but related areas. His interest in learning more about kinesiology was that he thought it would provide critical knowledge to support his work. (He also admitted that at 40-years old, he had an “addiction” to earning advanced degrees!) But I asked why he felt frustrated when he had talked to others about kinesiology. His answer was that in calling chairs and program directors at different universities there was much inconsistency in how they described their programs and what the program outcomes were. We continued our discussion for more than 45 minutes. My approach was to describe kinesiology as a broad field of study and then emphasize that different programs are focused on different aspects of the field. He reported feeling more secure in his understanding of kinesiology and decided that he should be clear about what he was interested in doing as he contacted different kinesiology departments.

After the call, I began to reflect on my conversation with this individual. He had made “blind” calls to a number of kinesiology chairs and program directors and had received what to him seemed very inconsistent answers. This situation reminded me of the story of the six blind men and the elephant. There are a number of variations of this story with the number of blind men varying from 4, 5, or 6, but the moral of the story is always the same. (My favorite version is a poem by John Godfrey Saxe titled “The Six Blind Men and the Elephant.”) To recap the poem (but not in verse), there were six blind men who had heard that the elephant was an amazing animal and each wanted to learn more about the elephant. So, it was arranged that each man would...
have an opportunity to personally experience an elephant. As each approached the elephant, one at a time, each touched a different part (body, tusk, trunk, knee, ear, and tail) and discovered for himself exactly what an elephant is. But their experiences all led to different descriptions of the elephant and the six blind men began to argue long and hard about kind the of animal the elephant is. The later lines from the poem are

And so these men of Indostan, disputed loud and long, each in his own opinion, exceeding stiff and strong, though each was partly right, and all were in the wrong!

Kinesiology, like the amazing elephant, has a lot of individual parts and in some cases without knowing the whole, it’s difficult to imagine how they would fit together. Chairs, program directors, and faculty need to keep “in sight” the amazing discipline of kinesiology to appreciate how each piece contributes to the full and rich diverse field of kinesiology. Kinesiology is too broad a field for every academic unit to include all the different perspectives; so each academic program represents only selected parts of the “elephant” but that doesn’t diminish the importance or contributions of other perspectives not included within a specific program.
Can Physical Activity Increase Gross Domestic Product?
By Penny McCullagh, Ph.D., KT Editor

Often times when we read research about physical activity we hear about how much it is costing society when people are inactive. We hear about the cost of illness and disease and how physical activity can help offset some of these costs by making people healthier. This approach is called the “cost of illness approach”. According to the RAND Corporation https://www.rand.org/pubs/research_reports/RR4291.html this approach makes comparisons across countries challenging, since some countries use a direct costs approach (such as healthcare and medical costs), whereas other studies also take into account indirect costs (such as loss in productivity or loss in lifetime income) for those who become ill.

While I had heard the name RAND Corporation in the past, I was not aware of exactly what it was until a colleague introduced me to their recent report on physical activity. I went to their website (https://www.rand.org/) and was pleasantly surprised by their mission.

“At RAND we bring together the finest researchers in the world and utilize the very best analytical tools and methods to develop objective policy solutions. We deliver fact-based, actionable solutions grounded in rigorous analysis. RAND is nonprofit, nonpartisan and committed to the public interest.”

I learned from the website that they have nearly 2000 staff, housed in 50 countries, speaking 75 languages, and more than half hold a Ph.D. in a wide array of disciplines. I also learned that they have the largest public policy Ph.D. program in the country, and the only one based at an independent policy research organization. It appears as though they have the expertise to do large scale studies and suggest policy change.

For this particular study, they focused on the country or region’s gross domestic product (GDP) as a global measure of total economy output. To conduct the study they used a large scale meta-analytic methodology to examine the relationship between physical activity and mortality. They also used large scale workplace survey data to examine the relationship between physical activity and workplace performance, and finally they used an economic modeling analysis to determine how physical activity improvements may affect the economy of nations over a 30-year time period.

The analysis of data was based on a complex modeling technique based on three different scenarios of physical activity enhancements. The primary research questions and answers (in bold) were:

1. “What are the potential global economic benefits associated with getting people to be more physically active?
   Getting individuals to be more physically active would be associated with increased economic benefits.

2. What level of healthcare expenditures could be saved?
   Based on predictions, billions of dollars would be saved if physical activity increased.

3. What can public policy and private stakeholders do in order to improve physical activity at the population level?”
The researchers recognize that changing behaviors is difficult but suggested that individuals, the workplace, and the government could help by recognizing interventions across at least four domains:

a. Change behavior and attitudes
b. Provide environments that encourage physical activity
c. Promote participation
d. Build mutually reinforcing approaches to encourage more physical activity across society.

So what is new?

The researchers claim that other than one study they could identify from Canada, this is the only study that has examined the economic benefits of physical activity. The 189-page report with over 200 references is indeed a gem for individuals interested in physical activity at a national and global level. The researchers conclude that creating a positive culture for physical activity is critical, but we probably have a long way to go to achieve that aim.

When You are Too Old to Cycle, Take Up Running

By Penny McCullagh, Ph.D., KT Editor

The front page of USA Track and Field Masters highlights Julie Hawkins who won the 50 and 100 meter races in Albuquerque, NM. Julia is 103 years old. Shortly after her wins (yes, she was the only one in her age group, but that really doesn’t matter) she was interviewed by the New York Times.

The writer discovered that Julia stopped cycling, and at 100-years-old decided to take up running, noting that she did a lot of running to get to her landline phone. She is an avid gardener in Baton Rouge Louisiana and does not run regularly to train. She feels as though she only has so many 100 dashes left, and does not want to use them all up in practice. She has also written a book called “It’s Been Wondrous: The Memoirs of Julia Welles Hawkins”.

When asked by the NY Times if she had any advice she said:

“Keep yourself in good shape if you can. Have many passions. And look for magic moments. That is something that I have done in my life — think of the things that are magic moments that happen to you, like sunsets and sunrises, rainbows, beautiful birds, music and people’s lovely comments to you. All of those are magic moments and they are free for all. Be sure to keep your eyes open for them.”

It appears as though it is never too late to start a new activity!
Each year AKA recognizes outstanding administrative and leadership performance of an individual in an administrative unit at an AKA member institution. The award is named in honor of Jerry R. Thomas, the first president of AKA. An award is given for each level of institutional membership. At this year’s workshop in Florida, Jason Carter (Past-President of AKA) introduced the three individuals who received the award.

Undergraduate – Heather Van Mullem – Lewis Clark State University

Dr. Van Mullem received a B.S. in Physical Education from Eastern Washington University (1999), a M.S. in Kinesiology at Humbolt State (2001), and Ph.D. in Education from the University of Kansas (2005). She became an assistant professor at Lewis Clark State in 2006, where she steadily progressed across the ranks of associate and full professor in the Department of Health and Kinesiology. Additionally noteworthy, she conducted post-doctoral work at the University of Idaho from 2007-2009 while she was establishing her faculty career at Lewis Clark State University, and she is now pursuing her JD from University of Idaho.

In 2012 she dipped her toes into the “dark side” by taking on the duties of Division Chair for Education & Kinesiology, and Division Chair of Movement & Sport Sciences from 2017-2019. Her three letters of nomination speak very clearly to the impact she had during those seven years of administrative leadership. Some highlights include the following:

- Oversaw and assisted with the development of numerous new classes and three new degree programs, including 1) Sport Administration, 2) Sports Media Studies, 3) Exercise Science.
- Served as President of Northwest District of SHAPE America, President of Idaho SHAPE, and President of Western Society of Kinesiology and Wellness.
- Involved broadly across campus in student-centric efforts, including organization and facilitation of a two-day UG student professional development event focused on leadership development and research in western US states with kinesiology programs.
Remains deeply engaged in research and publications to expand understanding of key kinesiology-oriented topics including ethics in practice, women athletes and perceptions of beauty, and pedagogies of coaching.

A couple brief quotes pulled from her nomination letters.

“Dr. Van Mullem inspires, motivates, and provides moral support, most often with a behind-the-scenes approach.”

“In Lewiston we are a valley of white water rafting opportunities, and one of our students gave an analogy describing Dr. Van Mullem and her passion. The student said “You just have to be in one of her classes or presentation to catch the V-wave.” In white water rafting, the V-wave is “both exciting and safe and leads you through the right path!”

“Dr Van Mullem is undoubtedly the all encompassing definition of a true leader; one who has earned respect and admiration from those she has led. After nearly a decade of service in a leadership role, her desire to inspire and develop those around her has only been fueled.”

In conclusion, Dr. Van Mullem has been an inspiration to her faculty colleagues, and most importantly to the students at Lewis Clark State University. She has the reputation of a leader who gets things done in a manner that does not alienate, but instead inspires… which exemplifies the essence of this Leadership Award.

**Masters - Gayle Hutchinson – California State University – Chico**

Dr. Gayle Hutchinson receives award from Jason Carter, Past-President of AKA

Dr. Hutchinson received her B.S. in Physical Education Teacher Education in 1979 from the University of Massachusetts-Amherst. She went on to receive her Master’s degree from Columbia University in Teaching Analysis and Curriculum Development (1983), and finally back to UMass for her Ed.D. in Physical Education in 1990. In 1990, Dr. Hutchinson was hired as a faculty member in kinesiology at Cal State – Chico.

In 1997, she was recruited to serve as Associate Chairperson for the department, where she served in that capacity for three years. Around that same time in the early 2000s, Dr. Hutchinson began to take on broader campus leadership through University Senate, where she served as Senate Chair in 2006, during this time she also served as department chair (2002-2007). From 2007-2013 she served as Dean for the College of Behavioral and Social Sciences at Chico, after which she transitioned to Provost at Cal State University Channel Islands (2013-2016), and finally back to Chico as President in 2016. Her list of leadership accomplishments is far too long to succinctly summarize, but here a few highlights pulled from her vitae and nomination letters:

- As faculty, she has authored, or co-authored significant publications and presentations related to physical
education pedagogy, physical activity, health, social psychology and social justice.

• As chair, she oversaw curricular reform and updating, supported student success, and created an environment that supported faculty teaching and scholarship.

• As dean, she managed a $10 million base budget that focused on enrollment management in some of the most challenging enrollment swing years for not only kinesiology programs, but also behavioral and social science programs (not always in the same direction).

• As President, she redesigned the University Strategic Plan, improved Town-and-Gown relations, initiated the University’s first capital campaign with a goal of $100 million, and led the campus through an unprecedented and largest statewide fire disaster (the Camp Fire).

A few brief quotes pulled from her nomination letters.

• “Throughout her leadership, Dr. Hutchinson has been a builder of programs, enhancing both team effectiveness and efficiency. Gayle worked to bring a revised mission and renewed collaboration in the kinesiology department when she took over as chair.”

• “Nothing tested Hutchinson’s presidency at Chico State like the November 2018 Camp Fire, which devastated the surrounding community and caused more than 310 faculty, staff, and students to lose their homes. It was a crash course in leading through adversity. CSU-Chico would not have been able to get through one of the most challenging years in our history without the leadership of President Hutchinson.”

• “Dr. Hutchinson is an excellent listener and problem solver; she inspires those who work with her (not for her) by creating open channels of communication and shared vision.”

In conclusion, Dr. Hutchinson is arguably one of our most accomplished administrators in the field of kinesiology.

**Doctoral -Phil Martin, Iowa State University**

Dr. Martin received his B.S. and M.S. from the University of Illinois Urbana-Champaign in 1977 and 1979, respectively. He then went on to complete his Ph.D. at Penn State University in 1983.

Dr. Martin’s first faculty position was in the Department of Exercise Science and Physical Education at Arizona State where he progressed through the ranks of assistant, associate, and full professor ranks from 1983-2002. While at Arizona, he served twice as department chair, once in 1992-94 and again in 2000-02. In 2002, he moved to the Department of Kinesiology at Penn State University, where he served as department head until 2007.

Dr. Phil Martin receives award from Jason Carter, Past-President of AKA
2008, he was hired at Iowa State University, where he has served as department chair of Kinesiology from 2008-2019. Similar to our first two Distinguished Leaders, Phil’s accomplishments are too lengthy to completely capture, but here are a few highlights pulled from his vitae and nomination letters:

- As department chair at Arizona State, he cut his administrative teeth by overseeing 25 tenure track faculty, 20 full-time and part-time instructors, 800 undergraduate and 50 graduate students.
- As department chair at Penn State, he developed a reputation with his faculty as being a data-driven, evidence-based leader who effectively advocated to the dean and higher administration.
- During his tenure at Iowa State, the department experienced a near doubling in majors, substantial increases in external research expenditures across multiple sub-disciplines, and he helped to secure new and renovated facilities for both teaching and research.
- Some national honors include not only being a fellow of both the American Society of Biomechanics and the National Academy of Kinesiology, but also serving as President of both societies.

A few brief quotes pulled from her nomination letters:

- “Dr. Martin has overcome challenges, created outstanding programs, fostered collegiality and respect, and demonstrated strong and unwavering support for faculty, staff, students and colleagues.”
- “Professor Martin’s leadership was tested under extremely adverse conditions (i.e., doubling of majors). It would have been unsurprising, under such conditions, to see a significant drop in research productivity, a decline in morale among the faculty, and loss of confidence in the Chair. Instead, he is unanimously perceived as a competent and supportive leader, who helped the department navigate an extraordinarily challenging period.”
- “Dr. Martin has successfully fostered one of the most collegial departmental environments on campus. They solve problems together, even when budgets are tight. The faculty members regularly participate in and lead important activities across the college and university.”

In conclusion, Dr. Martin has consistently and repeatedly won over faculty and peers at each of the three universities where he served as department chair, which is no easy feat.

(Comments are taken primarily from introductory comments provided by Jason Carter at the AKA Workshop)
Building upon the success of the AKA Leadership Workshop, under the leadership of President Jason Carter and with assistance from John Bartholomew, the AKA Leadership Institute was started in 2019. “The Leadership Institute utilizes a mentoring model to provide exceptional training and networking for new department chairs, associate chairs, and emerging faculty leaders who aspire to advance toward administrative positions in the near future. This 12-month program includes: 1) two in-person, group sessions held in conjunction with the annual AKA Leadership Workshop, 2) bi-monthly webinars with other fellows and a facilitator to discuss a leadership topic, and 3) bi-monthly one-on-one calls with a senior mentor to discuss a case scenario relating to the prior month webinar (~30 min) and to seek input on local challenges and career development (~30 min). Key resource materials, often in the form of peer-review publications (i.e., Kinesiology Review, Quest, etc.) or case studies, are provided prior to webinars and other sessions. Mentors are assigned in consultation with each fellow.” http://www.americkinesiology.org/SubPages/Pages/Leadership%20Institute

I wanted to get a sense of motivation from individuals who had just completed the program, as well as those who just enrolled. Thanks to all those who provided information for this article.

SOME THOUGHTS FROM THE CLASS OF 2021 THAT JUST STARTED THE INSTITUTE

1. Why did you decide to apply for

AKA Leadership Institute Class of 2021 (left to right): Tiffanye Vargas, Jacob Sosnoff, Megan Frost, Phillip Post, Liz Mullin, Priscila Tamplain, Danielle Wadsworth, John Bartholomew, Mary Rudisill, Kevin Patton, Tom Wu, John Gleaves
the AKA Leadership Institute?

- It is set up to provide you with one-on-one mentorship from senior leaders in the field. This allows us to have a great resource and build a relationship with someone who has “been there” and “done that.”
- We are in a cohort with ten other emerging leaders who will be facing many of the same challenges that I do on a daily basis and I will interact with colleagues who can relate to what is going on in my daily responsibilities.
- The webinar series will provide many important historical contexts relative to Kinesiology and provide the framework for leading a Kinesiology unit.
- I applied to the AKA Leadership Institute because I needed more formal leadership training. As my leadership roles expanded within my university, I quickly figured out that the intricacies of leading in higher education are nuanced and I didn’t currently have the skills to be an efficient leader.

2. How much department leadership do you currently have and can you share some leadership goals?

- I currently oversee our program. My goals are to ensure that our students receive a high quality education and that our faculty and staff have the resources and support needed to be great instructors and leaders in their individual scholarly areas.
- Currently I am the graduate program coordinator. Overall, I think my leadership goals are to effectively serve the university and the faculty. I want to provide effective processes that reduce the workload of the faculty but still provide effective services.

3. Can you provide three topics or areas that you hope to learn during your time in the program?

- Implementation and assessment of short term and long term strategic plans
- Working to get the most out of faculty by allowing them to utilize their strengths while also meeting the programmatic goals and needs
- Developing strategies to diversify our program.
- Budget
- Handling Personnel

4. Other thoughts?

- AKA provides power to Kinesiology departments by connecting departments across the country. I am excited to learn from this opportunity.
- After attending one day of workshop this fellow said - “It was extremely helpful for me to understand the world of a Department Chair and everything I should be considering moving forward. It felt like a “Chair 101 course – all the things you should know before moving into administration”.

SOMETHOUGHTS FROM INDIVIDUALS WHO COMPLETED THE YEAR LONG INSTITUTE IN 2020

1. Why did you decide to apply for the AKA Leadership Institute? Has your experience modified your impressions of kinesiology?

- I learned of the AKA Leadership program from some colleagues and was immediately interested in the opportunity. I was particularly impressed with the group of scholars and academic leaders.
from the field of Kinesiology that had been assembled to lead and participate in the program. Given the breadth of their expertise and wealth of experience in the field, I was very confident the program was an outstanding professional development opportunity. The program unquestionably provided me with an enhanced appreciation of the depth and scope of Kinesiology nationally which is invaluable in shaping innovative, forward-thinking perspectives as academic leader.

2. How much department leadership did you have at the time you enrolled and can you share some leadership goals that you had when you joined?

- I was in a Department leadership role of four years at the time I joined the program. My primary goals were to learn new leadership skills, refine some existing ones, and apply these to enhance my abilities to manage my program’s day to day operations and more effectively advance the mission and vision of the unit.

3. Can you provide me a brief summary of three things that you found most useful from the program?

- I found both the content in the workshops and simply having the opportunity to engage with the experienced scholar-leaders involved in the Leadership program were particularly impactful. Each of the leaders and participants brought substantive experience and diversity of perspectives on how to approach a variety of typical and unique challenges we face in academic leadership positions. The dialogue, and support provided from the fellow cohort, expanded my leadership “toolbox” and perspectives on how to be a more effective academic leader. It was a valuable experience and I would highly recommend it to anyone who currently is or is...
considering pursuing leadership positions in Kinesiology.

Other Comments from Fellows:
• The AKA Leadership Fellows program was a unique opportunity to broaden my perspectives and leadership skillset. Working with a mentor was valuable in receiving feedback to refine my approach to leadership.
• By far, the highlight of this institute was the ability to communicate regularly with my mentor. Having someone to bounce ideas with, in a neutral atmosphere, was very much appreciated and quite helpful. The insight and perspective the mentor provided has been invaluable.
• The AKA Leadership Institute allowed me to expand my understanding of common leadership issues across varied institutional contexts. Now I have multiple frames of references at my disposal.
• The one-to-one mentorship was key. My mentor gave me both historical and “real-time” perspectives to consider when discussing day-to-day leadership issues and topics I was facing as an administrator.

Class of 2021 Leadership Institute Fellows
Class of 2021- Tim Brusseau, University of Utah; Priscila Caçola Tamplain, University of Texas – Arlington; Megan Frost, Michigan Tech University; John T. Gleaves, California State University, Fullerton; Elizabeth Mullin, Springfield College; Kevin Patton, California State University-Chico; Phillip Post, New Mexico State University; Jacob Sosnoff, University of Illinois at Urbana-Champaign; Tiffanye Vargas, California State University-Long Beach; Danielle Wadsworth, Auburn University; Tong-Chin (Tom) Wu, Bridgewater State University

Class of 2020 - The American Kinesiology inaugural class of fellows represent the broad range of member institutions within the AKA. Gonzalo A. Bravo, West Virginia University; R. Matthew Brothers, University of Texas at Arlington; Brian C. Focht, The Ohio State University; Karen S. Meaney, Texas State University; Sara Michaliszyn, Youngstown State University; Marc F. Norcross, Oregon State University; Jared A. Russell, Auburn University; Dan Tarara, High Point University; Mark Urtel, Indiana University Purdue University Indianapolis

If your program is doing something exciting, please contact KT Editor, Penny McCullagh with your ideas for potential articles. kintodayaka@gmail.com
Urgent action is required to correct concerning global trends in the level of physical activity that adolescents are getting on a daily basis, according to a World Health Organization (WHO) study published in November. According to the study, which WHO says is the first of its kind documenting global trends in insufficient physical activity in adolescents, more than 80 percent of school-going children between the ages of 11 and 17 are not meeting current recommendations of at least one hour of physical activity per day.

There also exists a widening gender gap between girls and boys. While 22 percent of boys were meeting the physical activity recommendation, only 15 percent of girls were getting one hour of activity per day. The gender gap existed to varying degrees in 142 of the 146 countries examined in the study, and the gap seems to have grown between 2001 to 2016. Overall, boys across the world have shown some improvement in getting more physically active between 2001 and 2016, but there has been no significant change for girls.

The United States registered the second largest gender gap in the study. In 2016, 64 percent of U.S. boys were not meeting physical activity recommendations, while 80.5 percent of girls did not reach the one-hour-per-day mark. The largest gender gap was in Ireland, where 63.5 percent of boys and 80.5 percent of girls were deemed insufficiently active. There is some good news for the United States, which overall had some of the lowest levels of insufficient physical activity for both boys and girls – meaning the U.S. has more active teenagers than in most parts of the world.

The WHO findings are based on data from 298 school-based studies in 146 countries, totaling 1.6 million school children across the world. The major takeaway, researchers say, is that children generally are not as active as they should be, and that can have health-related consequences now and in their adult lives. “Levels of insufficient activity among school going adolescents are high pretty much everywhere in the world, no matter what income group a country belongs to,” said Dr. Regina Guthold, a WHO researcher and the lead author on the study.

WHO recommends that adolescents complete one hour or more of moderate to vigorous physical activity per day to benefit from the well-documented positive health outcomes like improved cardiorespiratory and muscular fitness, as well as positive effects on weight. WHO says that there is also growing evidence that activity has a positive impact on cognitive development, and evidence suggests that many of these benefits continue into adulthood. The authors insist that “urgent scaling up is needed of known effective policies and (programs) to increase physical activity in adolescents.”

Guthold said that policy makers can look to what WHO’s list of “best buys” for help. Those are programs that WHO considers...
to be the most cost-effective approaches to reducing non-communicable diseases, which includes increasing physical activity among individuals.

Some of these “best buys” and other recommended interventions include:

- Community-wide public education and awareness campaigns for physical activity; such as a mass media campaign combined with other community-based education, motivational and environmental programs focusing on encouraging individuals to become more active;

- Including physical activity counseling and referrals as part of routine primary health care;

- Designing smart communities and ensuring convenient and safe access to quality public open space and adequate infrastructure to support walking and cycling;

- Ensure quality physical education and access to facilities in schools;

- Encouraging workplaces to offer physical activity programs; and

- Promoting physical activity with sports clubs and events.

“To really address the issue, action needs to happen at multiple levels, including at schools, at home, in the communities, and also across a range of sectors,” Guthold said. “For example, (in the) transport sector to increase opportunities for safe walking and cycling to school.” While the study did not systematically investigate the reasons behind the widening gender gap, the researchers did offer some potential explanations.

“Interventions to increase activity levels among young people – wherever they have been put in place – only seem to speak to boys, but not to girls,” Guthold said. “In many countries, big national sports that are promoted are male-dominated sports and therefore speak to boys more than to girls.”

Aside from sports, there may be some other cultural barriers for girls in some countries, Guthold said. There is a lack of opportunities for girls to be active, and there are greater and potentially growing safety concerns for girls. The United States fared better than most of the world – along with Bangladesh and India – in levels of physical activity among teenagers. While those three countries have active teenagers in common, the authors note that the reason for that activity may be very different. For boys in Bangladesh and India, there is a strong focus on national sports like cricket. For girls, the relatively higher activity levels may be explained by societal factors like increased domestic chores.

In the U.S., the authors suggest that it may have fared better than other countries because of strong physical education in schools and good availability of sports teams – potentially driven by pervasive media coverage of national sports. Still, the authors suggest that activity levels need to be higher and action is needed on a global scale.

“If we address the issue now, future generations will be healthier,” Guthold said.

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Where You Live May Predict How Long You Live
By Penny McCullagh, Ph.D., KT Editor

Many of us have heard of walkability scores. If you have examined real estate commercials, you often see them list a walkability score as an enticement for you to move to that location. If you search online for walkability, you will see a host of commercial sites as well as research references on the validity of walkability scores. While there are certainly a multitude of different scoring techniques for walkability, there are also a host of studies examining the relationship between walkable neighborhoods and health outcomes as well as social, environmental, and financial outcomes for the community.

Dr. James Sallis, Professor Emeritus at UC San Diego has had a profound influence on promoting physical activity across numerous domains including schools, health care settings, universities, and communities. According to his research group website, he is one of the most cited researchers in the world. His extensive research focuses on creating healthier cities. In one study (Sallis et al, 2016), over 6,000 adults from 10 cities in 14 countries were sampled on walkability and socio-economic status.

Individuals who lived in the most activity friendly neighborhoods did more physical activity than those that lived in less activity friendly neighborhoods. https://medschool.ucsd.edu/som/fmph/research/labs/Pages/james-sallis-research-group.aspx

A recent study (Howell et. al, 2019) wanted to test the notion that “individuals living in less walkable neighborhoods have a higher predicted 10-year cardiovascular disease risk compared with those living in highly walkable areas”. To test the notion they used data from a large scale sample of 15 cities in Ontario, Canada. Walkability scores were based on population density, dwelling density, street connectivity, and number of accessible destination (banks, grocery stores, etc.).The primary outcome measure was predicted higher 10-year cardiovascular disease occurrence.

The results suggested that folks who lived in the most un-walkable neighborhoods were 9-33% more likely to have a higher predicted cardiovascular risk. The authors suggested: “to our knowledge, our results are the first to report that residing in a less walkable neighborhood is associated with a clinically significant elevation in predicted 10-year risk of cardiovascular disease”. While they do recognize a number of limitations in their study, they suggest that it does provide some fodder for future research.

So next time you are going to move – you may want to check out the walkability of your neighborhood as one criteria for choosing your home or apartment!

Project ECHO: Moving Knowledge, Not People

By Amy Rose, KT Staff Writer

Project ECHO (Extension for Community Healthcare Outcomes) is transforming the way education and knowledge are delivered to reach more people in the rural and underserved communities. The ECHO model and the ECHO institute were created by Sanjeev Arora, MD at the University of New Mexico Health Sciences Center in 2003. Dr. Arora was one of the few specialists in the state treating hepatitis C patients. Many were going untreated because of the lack of providers trained to treat the disease and also a lack of resources to access that treatment. Arora designed a telementoring program to help train other healthcare providers around the state to treat Hep C patients. The ECHO model creates a team of specialists in a certain area of need. The team then holds online training sessions with healthcare providers to help them better serve patients with that special need. Training is done by reviewing case studies brought to the group by participants.

The Principles of the ECHO model are arranged by A,B,C,D.

A – Amplification – Use technology to leverage scarce resources

B – Share Best practices to reduce disparity

C – Case-based learning to master complexity

D – Web-based Database to monitor outcomes

The ECHO Institute at University of New Mexico has expanded this original model into a network of learning that currently serves 70,000 learners in 650 ECHO programs across more than 37 countries worldwide. Program topics now include a wide range of medical specialty treatment, pain management, veteran care, autism, etc., and is expanding to other fields such as education and first responder needs. (www.echo.unm.edu) The ECHO model could also be used to create a program involving physical activity or other kinesiology-related topics.

Arizona State University offers ECHO programs through their College of Health Solutions. The School of Nutrition and Health Promotion at ASU is an AKA member and part of the College of Health Solutions. ASU Project ECHO Director, Adrienne White says the ASU ECHO program is unique because it does not have an affiliated medical center or hospital at the university. She says they use the resources they do have available to them, which includes community partners such as the Mayo Clinic of Arizona and BlueCross BlueShield of Arizona. (chs.asu.edu/project-echo)

The ASU-based Project ECHO launched in 2019 with two programs. The first is focused on Behavioral Health Integration in Primary Care led by Dr. Matthew Martin from the College of Health Solutions at ASU. This program was designed to provide specialized training to primary care providers dealing with mental health treatment in their practices. The other initial program is a partnership within Arizona which offers expertise in treatment of End-stage Liver Disease. Patients that are further from a specialized liver disease center are at a higher risk of death than those closer to the expert care.

“Lots of people who need help aren’t getting it. We need to do something about that,” said White.

ASU Project ECHO is preparing to launch two new programs this year. A partnership with BlueCross BlueShield of Arizona will support a program on Medication Assisted Treatment. The need for the program was identified after the governor
of Arizona declared a state of emergency regarding the increase in opioid-related deaths. Previously providers needed a special certification to provide this treatment and also was associated with a lot of complications and risks with the treatment. The program hopes to provide the necessary training and support to help providers navigate the complexities of Medication Assisted Treatment and save lives.

In March, the fourth program will focus on Veteran Community Care through a partnership with the Veterans Affair bureau in Phoenix. Recently veterans have been allowed to use their VA benefits to seek treatment from civilian doctors, however they have found that these providers are lacking in the skills needed to effectively treat conditions unique to or prevalent with the veteran patients. White said, “We have five experts in veteran’s health from the VA who will help elevate (local providers) to increase their capacity to meet veteran needs”.

Project ECHO at ASU follows the guidelines set forth by the ECHO Institute when creating and implementing their education programs. First they gather a “hub team” of experts in the selected area to conduct video conferencing meetings with participants. The sessions consist of a short presentation by one or two of the experts and then the group shares case studies they have encountered. The cases are discussed and recommendations made with the input of the group and the expert panelists. The sessions are mostly on-going to provide as much sharing of knowledge as possible and participants are encouraged to continue as long as possible. Professional CEU credits are also offered for some of the courses offered through Project ECHO. “We’re looking for champions who want to become the expert in their clinic”, said White.

The ECHO Institute provides support and a database to record provider information along with an online file storage system that can be accessed by all Project ECHO facilities around the world. This is valuable to ECHO directors who are just starting out or when they are creating programs that might be offered at other facilities.

All Project ECHO programs are self-funded with funding from partnerships and in-kind donations. “People who believe in it and see the need for it”, according to White. The cost of running the ASU Project ECHO is absorbed by the University. White is a professor and employee with ASU College of Health Solutions, along with directing the Project ECHO activities. “The more funding I bring in, the more time I can dedicate to the program,” White said. “I feel honored to be a part of it.”

White says their marketing focus is concentrated to the Arizona area, but the programs are open, free of charge, to anyone wanting to participate. She is always happy to answer any questions about Project ECHO, any programs offered or ideas for new programs that others see a need for. She can be reached at the email: echo@asu.edu. White says the use of this educational model to increase knowledge not only in health-related fields, but in other career fields such as education and emergency responders, is expanding the possibilities of how Project ECHO can serve more people in new and meaningful ways.

A screen shot of an ASU Behavioral Health Integration Echo online meeting facilitated by hub director Dr. Matt Martin (in the upper right hand corner)
Leadership Transition: Now Is Our Time

By Nancy I. Williams, AKA President

It was my honor to serve as the ninth President of the AKA in 2019! The year was fast and furious as our organization continued to grow, strengthen, and provide high quality leadership development opportunities while promoting Kinesiology as a unified academic field. I look forward to working in the capacity of Past President with our President Al Smith (Michigan State University), our President-Elect Jeff Fairbrother (University of Tennessee, Knoxville), and the Executive Committee and Board.

The chance to work with so many outstanding Kinesiology leaders this past year has further solidified my view that, more than ever...Now is Our Time! What do I mean by that? We are in a unique time in the history of our field. While we may bemoan the challenges of continued high enrollments, the need for space, budget cuts, and always being expected to do more with less, the upside is...we are making a difference, and I mean, a Big Difference! We are graduating tens of thousands of students each year who understand movement and physical activity from an inter-disciplinary perspective as well as the powerful impact of physical activity on human health and well-being. We are producing the next generation of scientists and cutting-edge knowledge through our research, and we are directly impacting people's lives through our service and outreach.

Although I have always believed in the importance of our field, the 2020 AKA Leadership Workshop “Promoting Physical Activity through Kinesiology Teaching and Outreach: An Eye toward the Future” hammered this home. The workshop attendance was over 140 and the combined Pre-workshops attendance was over 70, making this one of the most well attended meetings in AKA history. Throughout the Pre-Workshops and the Leadership Workshop, it was evident that Kinesiology’s “footprint” and “impact,” are growing and becoming well-recognized. Our expertise and success at positively influencing the health and well-being of populations across the lifespan was showcased by our invited speakers and presenters. We were reminded by Brad Cardinal and others that physical activity classes as part of general education can and do make a difference in the health of college students; we learned from Carena Winters about advances made by Kinesiology efforts with Exercise is Medicine programming on college campuses and worldwide; with Steve Petruzello we explored the role that Kinesiology departments can play to address the epidemic of mental health issues on college campuses; with Monica Lounsbery we learned about the power of policies and direct advocacy for physical activity in schools; from a panel of experts and other presenters we explored the importance of, and challenges facing, the training of physical education teachers. Information on innovative programming to sustain and promote physical education teacher education was well received. Attendees also presented on the advancement of government supported charters to promote physical activity, the creation of unique campus partnerships to maximize opportunities for students and faculty to be physically active, and on cutting-edge strategies to promote physical activity and
health in underserved communities, small and large college campuses, and across all phases of life.

In short, we in Kinesiology are working to improve human health and well-being through movement and physical activity at all stages of life and in numerous sectors i.e., community, schools, college campuses, and the government. I believe that if we take a step back and realize just how much good we are doing through our teaching, research, and outreach efforts, it might be a bit easier to deal with the everyday administrative struggles we face.

Lastly, and most importantly, as we heard from President Gayle Hutchinson (California State University, Chico) and Dean Cheryl Hanley-Maxwell (University of Illinois, Urbana-Champaign) during the Fireside Chat, we should be strategically leveraging evidence of this impact along with our high enrollments in conversations with upper level administrators in our constant battle for resources. More than ever, Now is Our Time!

(L to R) Cheryl Hanley-Maxwell, Gayle Hutchinson and Al Smith during the Fireside Chat the AKA Leadership Workshop
Many say that breakfast is the most important meal of the day. However, according to a recent research study published by researchers in the UK, you should eat that most important meal AFTER you exercise.

According to the researchers, “regular exercise training represents a potent strategy to increase peripheral insulin sensitivity and reduce postprandial insulinemia” which is strongly related to cardiovascular disease. The purpose of the study was to examine the acute and chronic effects of modifying time of eating and exercise on lipid metabolism, skeletal muscle and insulin sensitivity in overweight men.

To study the acute effects of timing of eating, 12 sedentary overweight men ate a standard breakfast (cereal, whole-wheat toast, sunflower spread and strawberry jam) either before or after exercise. Participants exercised on a bike for 60 minutes at 65% of max. The second study was a training study designed to assess chronic effects. Participants were 30 overweight sedentary males randomly assigned to either a control group (no exercise), a carbohydrate only breakfast before exercise group or a breakfast after exercise group. The exercise was moderate intensity cycling performed three times a week over six weeks. A host of measures was collected in each study.

In the acute study exercise before versus after breakfast increased lipid utilization. To get a better understanding, a six-week training study examined the same issues with a host of different measures. In this study, postprandial insulinemia was reduced when individuals exercised before breakfast, but not after breakfast.

The researchers suggested that given their results, future studies should report when the exercise bouts occur in relation to when participants eat, since there can be profound differences in a number of outcome measures.


Exercise Before You Eat

By Penny McCullagh, Ph.D., KT Editor