

PRIVATE UNIVERSITY PRODUCTS AND NEWS

AQUATICS & FITNESS SPECIAL EDITION 2023
PUPNMAG.COM

EMPOWERING
A BARRIER-FREE
WELLNESS CULTURE

TECHNOLOGICAL ADVANCEMENTS IN POOL MAINTENANCE

MAINTAINING THE PERFECT BALANCE IN UNIVERSITY POOLS

TECH-BASED EXERCISE EQUIPMENT





SANITIZE with the

ACF Series

Calcium Hypochlorite Tablet Feeders

- :: Safer than liquid systems
- :: Runs "Clean" Less Maintenance!
- :: Simple, Efficient, and Durable
- :: Systems available for ANY size pool
- :: NSF/ANSI Standard 50 Certified

CLARIFY with the **VPF-20**

Poly-A Tablet Feeder

- Unique tablet clarifier
- : Easier than liquid systems
- :: Removes organic and inorganic compounds
- :: Increases filter effectiveness
- : Proven cryptosporidium removal



AllChem Performance Products, Inc.
Phone: 352.378.9696
FAX: 866.343.1216
email: vantage@allchem.com
www.vantagewatercare.com



Copyright 2015 VANTAGE is a registered trademark of AllChem Performance Products, Inc. Beautiful Pool Water has never been this easy...



Introducing the

VANTAGE® ACF Series

Calcium Hypochlorite Tablet Feeders

- :: Unmatched water quality
- :: Safer than liquid systems
- :: Runs "Clean" Less Maintenance!
- :: Simple, Efficient, and Durable
- :: Systems available for ANY size pool
- :: NSF/ANSI Standard 50 Certified
- :: Uses VANTAGE Calcium Hypochlorite Tablets
- :: Majority of Parts are Interchangeable

Thanks in no small part to your input, our introductory ACF-60 model feeder received excellent reviews from the field. So good, in fact, that facility managers and operators, builders, and designers requested the same simplicity of design, reliability and ease of operation in both smaller and larger capacity feeders. Again we listened, and the result is the ACF-18 for commercial systems under 50,000 gallons, and the ACF-250 for systems up to 1,000,000 gallons of water. All three Vantage feeders are NSF/ANSI Standard 50 certified.

A complete line of chemicals, including our unique Poly-A Tablets is available.

VANTAGE We're Still Listening.

Phone: 352.378.9696 FAX: 352.333.7436 email: vantage@allchem.com



Copyright 2008
VANTAGE is a registered trademark of AllChem Performance Products. LP.

Hello-

As we dive into this special edition of our publication, we are thrilled to take you on an exciting journey through the ever-evolving world of aquatic facilities in private higher education institutions. Today, we celebrate the aquatic spaces that have become vibrant hubs of activity, learning, and community building on our campuses. With enthusiasm and optimism, we look to the future, where these facilities will continue to play a pivotal role in shaping the holistic experience of our students.

Aquatic facilities have come a long way from being mere pools. They now stand as dynamic centers, fostering physical wellness, academic growth, and social connection. These pools of the future are equipped with cutting-edge technologies, sustainable designs, and innovative learning opportunities. Private higher education institutions have embraced the importance of providing state-of-the-art aquatic facilities, recognizing their significance beyond recreational purposes.

Not only do these aquatic spaces serve as venues for competitive swimming and recreational activities, but they have also emerged as essential educational tools. From research projects in marine biology to experiential learning opportunities for environmental sciences, your aquatic facilities have proven to be invaluable assets that complement classroom education. As you continue to invest in these facilities, you open doors to boundless possibilities for your students and faculty alike.

The benefits of having fitness areas on campus are equally remarkable. We understand that a healthy body is a key foundation for a healthy mind. Fitness areas within our private higher education institutions serve as energizing spaces where students can release stress, rejuvenate their minds, and maintain overall well-being. These spaces promote inclusivity, allowing students from all walks of life to engage in a wide array of physical activities that resonate with their interests and preferences.

As we take a glance into the future, we see a campus where aquatic facilities and fitness areas have seamlessly integrated with academic pursuits. Imagine a student conducting research on marine life in the morning, attending a fitness class during lunch, and ending the day with a swim meet, all within the same vibrant campus environment. Such a holistic experience nurtures not only well-rounded individuals but also a stronger sense of community and belonging.

We are grateful for the support and enthusiasm from our private higher education community as we continually strive to help you enhance your campuses.

With warm regards, Ed Bauer

Publisher Private University Products and News Magazine ed@pupnmag.com



Ed Bauer Publisher/Editor-in-Chief ed@pupnmag.com

Chris Gannuscio Business Development Manager

Amanda Love Day Regional Marketing Director

Cynthia Mwenja, PhD Copyeditor

> Hilary Harkness Creative Director

Lisa Gibbs, EdD Cynthia Mwenja, PhD Staff Writers

Marley Cunningham Ellen Meyer David Vinson, PhD Contributing Writers

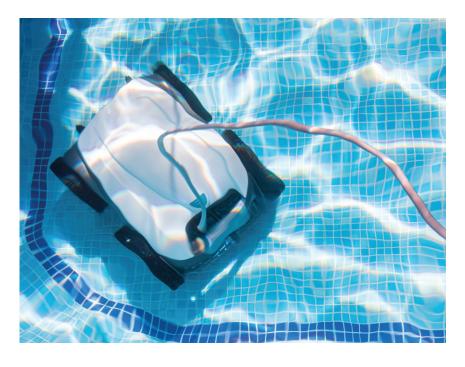
Circulation circulation@pupnmag.com



PUBLISHED BY FLAHERTY MEDIA PO Box 1903, Pelham, AL 35124 Toll Free: 800-705-5280 Fax: 855-239-8093

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage-and-retrieval system without permission in writing from the publisher. The views expressed by those not on the staff of PUPN magazine, or who are not specifically employed by Flaherty Media, LLC, are purely their own. be sent to rachel@pupnmag.com.

AQUATICS & FITNESS



6

TECHNOLOGICAL ADVANCEMENTS IN POOL MAINTENANCE

BY DAVID VINSON, PhD

A swimming pool: crystalline and cool, a place of refuge where one can wade and unwind, splash around and be silly, or experience a full-body exercise in comfort. For prospective college students, a swimming pool is a major campus attraction, not simply due to the dynamic possibilities of a pool's design and functionality, but also for what it represents as a social and restorative space. Moreover, aspiring high school swimmers who dream of competing at the college level are likely to focus on available aquatic facilities even prior to checking out the dorms. For these reasons, we're seeing a nation-wide trend of investments in aquatic facilities—they are and will remain a terrific recruitment and retention tool.



14

EMPOWERING A BARRIER-FREE WELLNESS CULTURE

BY MARLEY CUNNINGHAM

As private universities and post-secondary educational institutes strive to create inclusive environments that cater to the needs of their diverse student populations, one crucial aspect that must be given serious consideration is accessibility. Ensuring equitable access to recreation and wellness facilities not only promotes a sense of community, social connections, and peer support among students, but also has a positive impact on their physical and mental health, academic performance, and overall well-being.



20

MAINTAINING THE PERFECT BALANCE IN UNIVERSITY POOLS

BY ELLEN MEYER

In the simplest terms, over-stabilization occurs when too much cyanuric acid is added to pool water. Over stabilization is a problem because cyanuric acid (CYA) can slow down chlorine's ability to kill pathogens and algae. The active form of chlorine in pools is hypochlorous acid (HOCI), and the concentration of HOCI is affected by both the pH and the CYA concentration. At low pH, chlorine is in its full active HOCI form. At high pH, chlorine is present as the less-active hypochlorite ion (OCI-).



26

TAPPING INTO STUDENTS' DESIRES WITH TECH-BASED EXERCISE EQUIPMENT

BY DAVID VINSON, PhD

College students can face an uphill battle when it comes to staying physically fit, not least of all because with newfound independence comes daily opportunities to develop bad habits, dietary or otherwise. Think all-you-can-eat meal plans, limitless soda machines, pizza buffets, and all-nighters fueled by caffeinated, sugary drinks. Between the stress of coursework and balancing that stress with fun and social activities, students often find that little time remains for exercise.

pupnmag.com







ust as technological advancements are transforming the classroom with innovative means of disseminating shared and applied knowledge, swimming pools are swiftly becoming spaces transformed by technology, as well. Perhaps this is counterintuitive in some ways given the old model of a hole in the ground that is paved with concrete and pumped full of water. The evolution of what a swimming pool can offer and how it can be maintained is a testament to precisely what technological innovation provides. In fact, smart pool monitoring systems are now one of the most significant innovations in pool maintenance. These systems use sensors and other advanced technologies to monitor different components of pool water quality, such as pH and chlorine levels, in addition to water temperature. All is managed with a click on a smartphone. Monitoring systems also notify maintenance personnel when issues with water quality occur. Some smart pool monitoring systems can even be synced with other smart devices, enabling control of the pool's settings remotely.

Automated pool cleaners are hardly new, and yet recent technological advances have made them more efficient and effective than ever. Consider, for instance, robot pool cleaners. They are small, wheeled machines that use advanced algorithms to navigate and clean. They can even crawl up and down the walls of the pool. An electric motor creates suction to remove dirt and debris, placing the detritus in a catchment. Equipped with low voltage motors, robotic cleaners are particularly reliable for long-term use. Some models include a built-in sensor that can detect the shape and size of the pool, which optimizes cleaning patterns for maximum efficiency. Chemical dosing systems are also more efficient. Guessing the needed amount of liquid pool chemicals is an obsolete issue thanks to systems that automatically dispense the accurate amount of chemicals, including chlorine and pH adjusters. Such systems ensure that the water remains balanced and free of contaminants without the need for constant monitoring and adjustment.

Ultraviolet (UV-C) water treatment is a technology that uses ultraviolet light to disinfect pool water. The technology is highly effective in killing bacteria and other harmful pathogens, making it an ideal swimming pool acid alternative. UV-C water treatment also reduces the amount of chlorine needed in the pool, a welcome benefit to those who are sensitive to chlorine or prefer a more natural approach to pool maintenance. Saltwater chlorinators are another technological option. Rather than using traditional chlorine tablets or liquid, saltwater chlorinators generate chlorine from salt that's then added to the water. The result is a more natural and gentle approach to pool disinfection, one void of harsher chemicals. This form of chlorination can also reduce the need for regular manual cleanings because it helps to prevent the buildup of algae and other contaminants. An organic carbon dioxide (CO2) water system is likewise designed to reduce the amount of chemicals for water treatment and is considered an eco-friendlier swimming pool acid alternative. In an organic CO2 system, small amounts of carbon dioxide gas are injected into the pool water, creating a natural acid to help regulate the pH levels of water for safer and more comfortable use of the pool. An organic CO2 system is fully automated,

and its sophisticated control panel regulates the flow of CO2 gas into the water, ensuring that pH levels remain stable.

Recruiting with Innovative Leisure Pools

According to a study ten years ago from NIRSA (known otherwise as Leaders in Collegiate Recreation), ninety-two schools in higher education reported over \$1.7 billion in capital projects. This staggering investment has only grown. When students are polled regarding their wishes for campus improvements, their responses are enthusiastically recreation-based. Aquatics is central to this mission, and we are seeing stunning, creative designs that would stand out at any luxury destination. From a pool designed as a "lazy river" to a 20-foot wet climbing wall that empties into a deep oasis, innovations in aquatics are pushing the limits of imagination. Universities are now home to zip lines where students can ride over water,

recessed fireplaces in the middle of pools, and "rain gardens" that mist lounging students. Even the most innovative classrooms may look alike, but pools are an immediate attention-grabber for prospective students. Imagine the lasting impression made when prospective students encounter palm trees in an indoor beach club on campus; a pool patterned in the shape of a university mascot; hydrotherapy jet streams and equipment for water basketball and volleyball; 25-yard lap swimming lanes with color-changing LED lights and a 100-foot projection screen for film viewing as one takes a dip in the water; or, as if on the beach, a pool with zero depth-entry that leads into a current channel designed for relaxing or for a more challenging resistance swim.

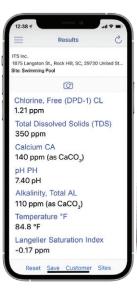
Competitive Aquatics and Recruitment

The U.S. College sports system represents a unique opportunity for competitive

continued...

Smart pool monitoring systems are now one of the most significant innovations in pool maintenance. These systems use sensors and other advanced technologies to monitor different components of pool water quality, such as pH and chlorine levels, in addition to water temperature. All is managed with a click on a smartphone.

DIGITAL ACCURACY FOR BETTER POOL CARE





















(Direct Read) (Total Alkalinity, Calcium Hardness, Chloride (Salt), Free/Total Chlorine, Total Bromine, Combined Chlorine, Copper, Cyanuric Acid, PH, and Phosphate)

Poolside testing with lab-quality accuracy and reliability

Connects with the eXact iDip® app using Bluetooth®

> Time, Date & GPS location stamp (When used with eXact iDip® app)

Economical solution for testing multiple pools







swimmers to combine a first-class university education with training and competing in the nation's best sports facilities. With approximately 550 swimming programs available at the university level, recruitment translates to big business. Aquatics facilities are central to this process and are tailored to the program's competitive priorities. A prospective student-athlete who excels in one specific swimming event—for instance, the 100m Freestyle—will understandably pay careful attention not only to the culture within the program but to the diversity of facilities offered. A similar logic applies to a student-athlete who is competitive across the board in multiple events.

A novice to the sport is unlikely to correlate aquatics design with having a competitive advantage, but this factor is noteworthy for competitive swimmers. Pools can be designed to achieve the fastest times during training and competitions—the depth of water, the wide tracks, and the water flow control system all ensure a minimization of waves. Indeed,

the water—and the athletes' ability to move through it—remains the most essential part of competitive aquatics events. Traditional pools are 25 or 50 yards in length, with 6, 8, or 10 lanes for racing. Every aspect of the pool itself makes a difference as competitors seek fast times. Perhaps it sounds strange to say that a pool can be fast, but its construction and design makes a difference. For instance, if one has the capacity to accommodate three lane lines between each lane, that makes the pool faster due to less wave action. Further, gutter systems where the water flies into the gutter and doesn't push back at the swimmers can facilitate faster movement. Details matter. USA Swimming requires water temperature between 77- and 82.4-degrees Fahrenheit for competition. In indoor facilities, the air temperature must be at least 76 degrees within eight feet above deck level; the relative humidity is about 60% and air velocity twenty-five feet per minute.

Larger pools require a means of separating the spaces to ensure each area is ready for competition. These structures are called bulkheads and are typically moveable to allow simultaneous events to take place without impacting one another. If a pool has a water polo area, diving well, or family-swim area, bulkheads can prove crucial in keeping an adjacent swim course wave-free for racing. Bulkheads can be installed in both current and new facilities. Because water polo in the U.S. is gaining prominence at the university level, many pools are built with the sport in mind. Water polo is played in roughly the same depth of water as swimming, not least of all because the depth limits waves and ensures no players can touch the bottom of the pool.

Accessibility, Safety, and Keeping Time

Competitive aquatics can draw sizeable crowds, especially at Ivy League schools where an impressive number of student-athletes go on to compete at national and Olympic events. For the fans, aquatics centers must

Overly: The First Name—and Last Word—in Specialty Doors. Bullet Acoustic Blast Vault · GSA Certified Metal Swinging · Metal Swinging · VLRB, LRB, and MRB Series Doors Doors · DOS Certified · Wood Swinging Wood Swinging · High-Range · Attack-Resistant Doors & Doors Doors Windows · Day Doors Oversized Door Fixed Window · UFC Blast · Day Gates Systems Fixed Window Mitigation · Pass-Throughs Systems Doors · Gun Ports • Pressure · Voice Ports Resistant & Watertight Radiation Shielding Doors



provide comfort and visibility in addition to adequate sound systems and lights. Any operator building a competitive facility must ensure there is enough deck space to accommodate every swimmer, official, timer, and fan at the event. Air circulation is a factor for comfort, as well, particularly for viewers seated in tall bleachers. Locker rooms and an appropriate number of restrooms are required by the ADA, as are wheelchair-accessible spaces. Of course, safety is a key priority at aquatics centers. Lifeguards need to be placed in appropriate areas to observe and enforce safety measures. Diving competitions require safety protocols such as non-slip platforms that provide a front edge flush with the end of the pool while also having no more than ten degrees of slope. The platforms must also be positioned between .5 meters and .85 meters above the surface of the water for short and long course pools.

Competitive pool technology has made no bigger strides than in timing systems. After

decades of handheld timing susceptible to human error, many competitive events are now implementing automated touchpads that have taken the minutiae of swimming to another level. Once the swimmer hits the wall, the time is recorded. If USA Swimming is used as a guideline, touchpads should be placed in the center of each lane and at least two feet underneath the water's surface. The panels stop the timing system instantaneously by a light hand touch anywhere on the flat surface facing the racing course; moreover, the upper edge cannot be activated by water turbulence. Notable, too, are the vast improvements in where competitors' times are displayed. A good videoboard even ten years ago would cost three times the average board today. Now, a scoreboard is also capable of video technology that doesn't look pixelated from a distance.

Remarkably, aquatics technology has also led to underwater video, something every coach would wish for. Most coaches would agree that visual learning is performed best by watching oneself swim. Some companies have designed sophisticated software platforms to make it simple to share video between coaches and athletes. Some include a system of high-definition cameras with different mounting solutions, pool deck analysis software, customizable iPad app, along with a cloud-based storage system to provide coaches with all the data they could possibly need. Clearly, aquatics has entered a new realm of possibilities, and our students and broader communities are taking note.

ABOUT THE AUTHOR: Dr. David Vinson has a PhD in English with specializations in transatlantic literature and cultural

studies. He is a committed scholar, teacher, and dad. If you ever meet David, avoid the subject of soccer. His fandom borders on the truly obnoxious.







COLORS SPEAK LOUDER TEAN WORDS.

Aqua Creek Products manufactures innovative aquatic access, therapy, and fitness solutions for people of all abilities. Handcrafted with pride in Missoula, Montana, featuring the only American-made solar compatible pool lifts on the market today. In-house powder coating professionals offer an endless variety of color options, including color matching. Whether you're seeking earthy granite textures for a high-end look, or vivid tones to match your school branding, we've got you covered.





INNOVATIVE ACCESS AND ADAPTIVE FITNESS PRODUCTS

Aqua Creek Products is a small, family-owned manufacturer based in Missoula, Montana that has become a world-reknowned industry leader in producing top-of-the-line aquatic access and adaptive fitness products. Their customer-centric approach and dedication to innovation has proven to be instrumental in revolutionizing the aquatic access industry.

One-Size-Fits-All Doesn't Exist

We recognize that a one-size-fits-all approach is fundamentally flawed, and understand the infinite combinations of abilities and facilities that require unique solutions. That's why we maintain a diverse range of pool lifts, providing adaptive solutions that accommodate individuals with varying needs.



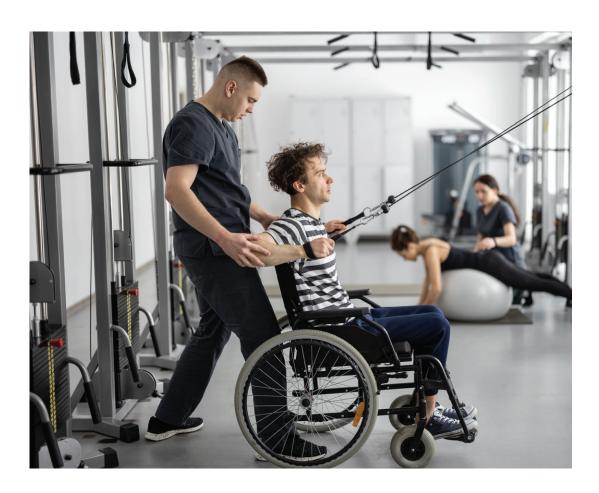
Equipment that's Unique as Your Students

We also offer adaptive fitness and therapy equipment specially designed for different abilities and fitness levels, including those with paraplegia and quadriplegia. We take customization seriously, recognizing that every individual is unique, and offer levels of customization to ensure that our products suit each person's specific requirements. With Aqua Creek, inclusivity, versatility, and personalized solutions are at the core of our product line.

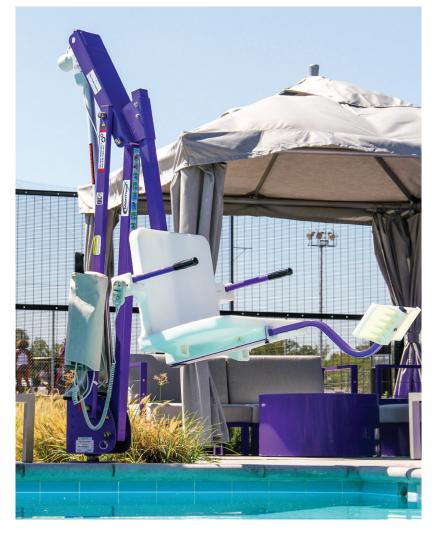
Leading the Charge

Innovation drives progress, and that is the very foundation of the Aqua Creek philosophy. It's easy to simply succeed; in fact, success can be achieved with little imagination or originality. To innovate you have to think differently, be unafraid of failure, and constantly find ways to reimagine your processes in creative ways that will turn those failures into successes. Our mission extends beyond our craft; we strive to contribute to a more equitable world through highly customizable equipment that provides access to life-changing activities for everyone; no matter their ability.

Visit www.aquacreek.com for more information. Old school? We don't mind. Call us any time! (888) 687-3552







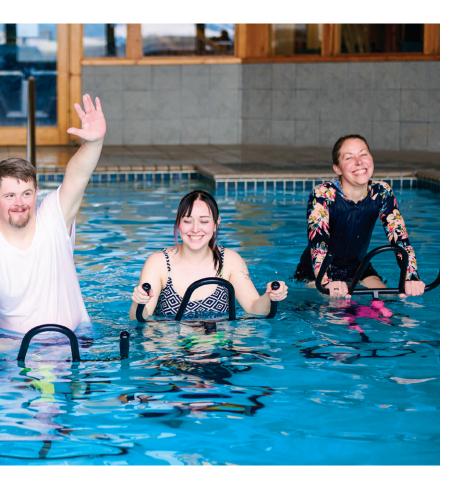
EMPOWERING A







BARRIER-FREE WELLNESS CULTURE



BY MARLEY CUNNINGHAM

As private universities and post-secondary educational institutes strive to create inclusive environments that cater to the needs of their diverse student populations, one crucial aspect that must be given serious consideration is accessibility. Ensuring equitable access to recreation and wellness facilities not only promotes a sense of community, social connections, and peer support among students, but also has a positive impact on their physical and mental health, academic performance, and overall well-being. In this article, we discuss the importance of accessibility in the context of campus recreation, and we explore various strategies that can help institutions foster an inclusive atmosphere that promotes health and wellness for all students, irrespective of their abilities.



Understanding Accessibility: A Spectrum of Needs

When discussing accessibility, it is essential to recognize that the idea is not a one-size-fits-all concept. Accessibility needs can vary greatly among individuals, depending on their physical, cognitive, or sensory abilities. For example, a student with a mobility impairment may require adaptive equipment to participate in physical activities, while a student with a visual impairment may need alternative formats for printed materials.

Recognizing that ability is a spectrum and not a black-and-white rulebook is the first step towards creating inclusive spaces for students. By adopting a holistic approach to accessibility and considering the diverse range of abilities among the student population, institutions can work towards providing equitable opportunities for all students to engage in wellness activities that improve quality of life.

Access Equals Success: The Link Between Retention and Wellness

Research has shown that accessibility plays a significant role in student retention, particularly for students with disabilities. According to a study by the American Institutes for Research, only 40% of students with disabilities who enrolled in post-secondary institutions completed their degrees or certificates within eight years. This statistic

emphasizes the need for institutions to prioritize accessibility in order to create an inclusive environment where all students feel supported and have the resources they need to succeed.

To further support this notion, additional studies have also shown a strong correlation between physical well-being and academic success. Accessibility in recreation and wellness facilities contributes to students' overall well-being by encouraging active lifestyles, providing stress relief, and fostering social connections.

Active Bodies, Focused Minds

By providing accessible recreation facilities, private universities create a welcoming environment that supports students' physical and mental health, leading to improved focus, motivation, and productivity in their academic pursuits. Students who engage in regular physical activity often exhibit better time-management skills, higher graduation rates, and improved overall academic achievement.

Educational institutions can integrate physical activity into their academic curriculum by offering courses that emphasize the importance of exercise, nutrition, and overall well-being. This interdisciplinary approach not only enhances students' academic performance but also equips them with lifelong skills for maintaining a healthy work-life balance.

Creating a Culture of Wellness and Lifelong Habits

Private universities have a unique opportunity to instill lifelong healthy habits among their student population. By ensuring accessible recreation facilities, these institutions can inspire students to develop regular exercise routines, learn about healthy nutrition, and practice self-care strategies. Equipping students with the knowledge and skills necessary for maintaining a healthy lifestyle during their college years fosters habits that can positively impact their lives well beyond graduation.

Private universities can collaborate with health and wellness professionals to provide educational programs and workshops on topics such as exercise physiology, nutrition, stress management, and sleep hygiene. By integrating these initiatives into the campus culture, institutions can empower students to make informed choices and adopt healthy habits that will benefit them for years to come.

Inclusive Branding: Sending a Loud, Clear Message

In today's competitive higher education landscape, private universities need to be mindful of their branding and the message they convey to potential students. In a world where young adults are making their decisions in a split second online before ever stepping foot on campus, an institution's approach to accessibility can greatly impact its attractiveness to prospective students, particularly those with disabilities or unique needs. By showcasing a commitment to accessibility and inclusivity, institutions can appeal to a wider range of students and parents alike, increasing their chances of attracting a diverse and talented student body.

All schools should consider adopting inclusive branding strategies that highlight their commitment to accessibility, both in their physical spaces and online presence. This approach can include showcasing accessible facilities on virtual campus tours, highlighting adaptive programs and services in marketing materials, and ensuring that websites are compliant with accessibility standards. By emphasizing the inclusive nature of these facilities and the opportunities they offer for personal growth, institutions can attract students who prioritize their physical and mental well-being.

Strategies for Implementing Accessibility in Recreation and Wellness Facilities

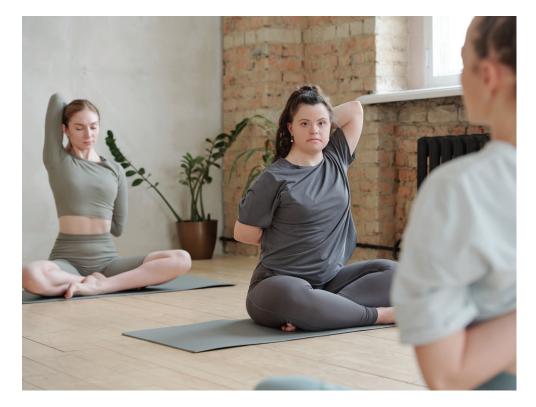
1. Assess Current Accessibility and Identify Areas for Improvement

The first step in implementing accessibility in recreation and wellness facilities is to assess the current state of accessibility and identify

continued...

Accessibility needs can vary greatly among individuals, depending on their physical, cognitive, or sensory abilities. For example, a student with a mobility impairment may require adaptive equipment to participate in physical activities, while a student with a visual impairment may need alternative formats for printed materials.





areas where improvements can be made. Such assessment may involve conducting an accessibility audit, consulting with students with disabilities to gather feedback on their experiences, and collaborating with disability service professionals to identify best practices for creating inclusive environments specific to each facility.

2. Incorporate Universal Design Principles

Universal Design (UD) is a proactive approach to designing environments and programs that are accessible to, usable by, and inclusive of everyone, including those with different abilities. By incorporating UD principles into facility planning and design, institutions can create spaces that are not only simply ADA compliant, but go above and beyond accessibility to create aesthetically appealing spaces that are welcoming to all students. For example, when aquatic facilities invest the time and resources to select branded bleachers and starting blocks, they should take equal efforts in selecting branded pool access equipment.

The National Disability Authority specifies seven key principles of UD:

- Designing facilities for equitable use by ensuring that all users can enjoy the same means of access, either identical or equivalent, without segregation or stigmatization, with a design that is appealing to all users
- Flexible designs that accommodate a variety of abilities and preferences, such as providing users with options for their preferred method of use
- Providing simple equipment that is intuitive for all users, regardless of their experience, language, knowledge, or ability
- Incorporating perceptible modes of communication that can be digested by a diverse range of users, regardless of their sensory abilities
- Designing with tolerances in mind so that potential hazards are minimized
- Minimizing repetitive actions and movements that require substantial physical effort so that people of varying abilities can comfortably use facilities and equipment
- Ensure ample size and space so that users are able to view, approach, and manipulate, regardless of body size, posture, or ability

3. Provide Training and Support for Staff and Faculty

In order to successfully implement accessibility in recreation and wellness facilities, it is crucial to provide training and support for staff and faculty. Such training may include offering workshops on disability awareness, providing resources on best practices for creating inclusive environments, and encouraging ongoing communication and collaboration between staff, faculty, disability service professionals, and the student body.

4. Develop and Implement Policies and Procedures

Having clear policies and procedures in place regarding accessibility can help ensure that all students have equitable access to recreation on campus. These policies should outline the institution's commitment to accessibility, as well as the specific steps and resources available to support students with disabilities in participating in physical activities and accessing wellness services.

5. Foster a Culture of Inclusivity and Peer Support

Creating an inclusive environment goes beyond simply ensuring that facilities are compliant. It also involves fostering a culture of inclusivity and peer support among students, faculty, and staff. Such a culture can be achieved through initiatives such as:

- Encouraging student organizations to be inclusive and welcoming to all students, including those with disabilities
- Providing opportunities for students with and without disabilities to engage in recreational activities together, such as adaptive sports or inclusive fitness classes
- Promoting peer mentoring programs and support networks for students with disabilities
- Encouraging open dialogue and education around accessibility and disability issues on campus

Conclusion

Ensuring equitable accessibility in recreation and wellness facilities is an essential aspect of creating an inclusive and supportive environment for developing young minds. By implementing and maintaining policies and procedures that better serve a more diverse population, private universities can promote the health and well-being of all their students, leading to improved student retention, academic performance, and overall success. Taking a strong stance on creating equitable experiences speaks volumes to prospective students, positioning institutions as progressive leaders of the educational system who proactively seek to instill both success and lifelong values within their student body. Let us strive for a future where every student feels empowered, included, and supported, ensuring that no one is left behind on the path to personal growth. And who better to lead the charge than the guardians of our post-secondary educational system, the

visionary stewards entrusted with shaping our youth and empowering them to conquer new frontiers? As they champion accessibility in campus recreation, these leaders possess the transformative power to forge a generation that embraces diversity, dismantles barriers, and propels humanity towards a future defined by unity and limitless possibilities. Through their examples, let us ignite a revolution of inclusion and resilience, ensuring that every student emerges from their educational journey equipped to conquer and unite a world waiting to be transformed.



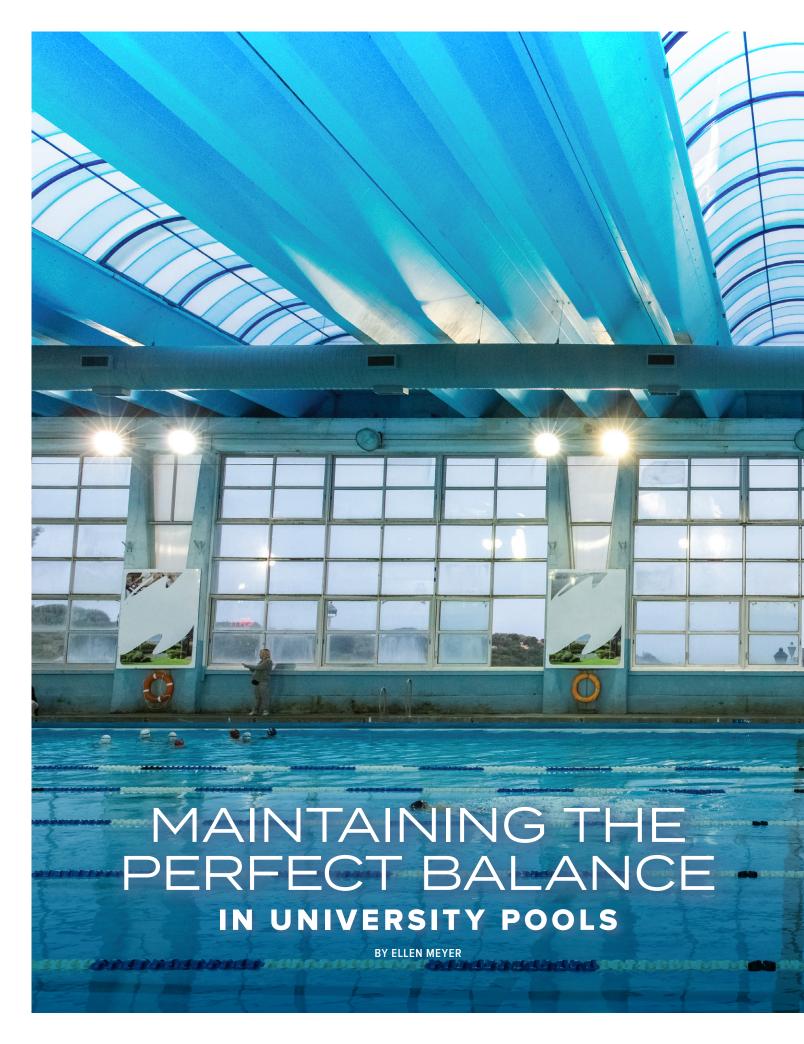
ABOUT THE AUTHOR: Marley
Cunningham is a marketing professional
and avid outdoorswoman. She is the

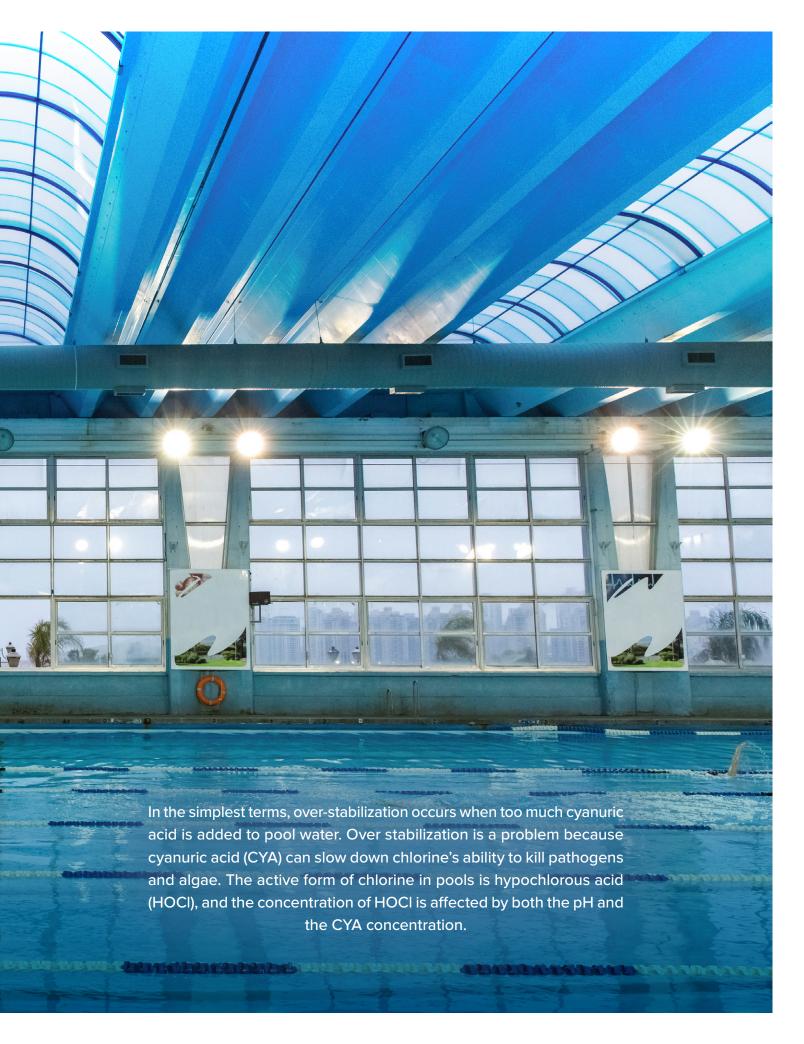
Director of Marketing for Aqua Creek Products, based in Missoula, Montana. www.aquacreekproducts.com



800 359-4913 • STERIFAB.COM









t low pH, chlorine is in its full active HOCl form. At high pH, chlorine is present as the less-active hypochlorite ion (OCl-). For this reason, pH must be controlled; keeping the pH below 7.8 ensures an adequate HOCl concentration is maintained.

Even with very low (<10 ppm) concentrations of CYA, the concentration of active chlorine (HOCl) is decreased significantly. It is important to control both pH and CYA concentrations to maintain an effective HOCl concentration. Disinfection rates are typically measured in terms of CT values, where C is the concentration of disinfectant and T is the time needed to inactivate the organism. When increasing CYA concentrations, the CT value increases. With more CYA, more time and more disinfectant are needed in order to kill the bacteria.

Pool Shocking

In a 2004 study performed by Lonza, eight identical 6,800-gallon pools were operated for three months at a test facility

in Miami, Florida: two control pools with no CYA, two pools at 25-50 ppm CYA, two pools at 100-125 ppm CYA, and two pools at 200-250 ppm CYA. Algae and synthetic bather load were added to the pools once a week. Each week, two days after the contaminant additions, the pools were shocked with 10 ppm available chlorine using calcium hypochlorite (cal hypo). Results showed that increasing CYA concentrations led to increased algae counts. The pools with 25-50 CYA had almost twice as many algae as the pools without CYA, and the 100-125 ppm CYA pools had between 9 and 10 times the algae.

Despite the drawbacks, CYA is a useful tool because it stabilizes chlorine, preventing the chlorine from being degraded by sunlight. The challenge is how to maintain a chlorine residual without compromising its efficacy. To do so, maintenance personnel should use as little CYA as necessary to maintain a chlorine residual and have a way to add un-stabilized chlorine slowly and constantly to the water.

Commercial pools have been using this strategy for years. By adding a small amount of CYA to the pool, the chlorine residual is stabilized. Then, un-stabilized products such as chlorine gas, sodium hypochlorite (liquid bleach), or cal hypo are used to provide a steady source of chlorine. In commercial pools, the chlorine feed is usually performed using feeding equipment and controllers.

The advantage of trichlor is that it is slow dissolving so daily additions of chemicals are not needed, and the equipment needed to feed trichlor to the water (i.e., a floater or tablet feeder) is simple and inexpensive. For every pound of trichlor added, however, about half a pound of cyanuric acid is added to the pool. With the use of trichlor, cyanuric acid concentrations can quickly build up and chlorine efficacy can be compromised. The un-stabilized sanitizers, cal hypo, and liquid bleach work great as sanitizers, but because they are fast dissolving, the equipment needed to feed these products has been more complex and expensive.

The Dangers of Trichlor Tablets in Skimmers

There are now slow dissolve cal hypo tablets on the commercial market, with a formulation tailored to the needs of a commercial



FLOODELIMINATOR

Model 5900

Eliminate Flooding Caused by Broken Auxiliary Drains

The M5900 stops flooding caused by auxiliary drains that freeze and break, are maintained improperly, vandalized, or broken by accidents. They enable facilities to recover faster with less clean-up expense.

- For Dry and Pre-Action Fire Sprinkler Systems
- Compatible with Compressed Air and Nitrogen
- No Power Required
- Automatically Resets
- Allows Condensation to be Drained Normally
- Retrofit onto Existing Auxiliary Drains
- Made in the USA





www.agfmfg.com

pool. Although these tablets dissolve very similarly to trichlor tablets, they cannot be used in trichlor feeders. Trichlor and cal hypo are incompatible, and combining them can be extremely dangerous. Putting both of these tablets into a feeder could cause fire, explosion, and the release of toxic gases and result in property damage, injuries or even death.

For commercial pools, the feeders are designed for use with the slow dissolve cal hypo tablets. Many pool professionals are wary of putting chlorine tablets in the skimmer. With trichlor, these worries are well founded. The combination of low pH and high chlorine of trichlor tablets can wreak havoc on pumps and other pool equipment. Cal hypo, on the other hand, has a high pH. Therefore, when it is used, the water moving through the equipment will have high chlorine content, but the chlorine is not as active due to the high pH.

Cal hypo adds calcium to the water. This result can be good for plaster surfaces, but, if left unchecked, too much calcium can lead to scaling and cloudy water. Like CYA from trichlor, calcium must be removed by draining and refilling the water. However, the amount of water needed to correct the calcium addition from cal hypo is much less than the amount of water needed to correct the CYA addition from trichlor. In addition to this advantage, cal hypo helps to protect pool plaster due to its calcium content and high pH.

In summary, if maintenance personnel are keeping the chlorine residual with trichlor or shocking with dichlor, they are not only adding chlorine to the pool, but they are also adding CYA. CYA hinders chlorine efficacy and should be maintained at the lowest concentration needed to maintain a chlorine residual. Slow-dissolve cal hypo tablets are now available that offer the convenience of

trichlor, without the CYA. These tablets and the proprietary, slow-dissolving technology in them are long lasting and leave no trace of CYA.

This non-stabilized chemistry helps to avoid over stabilization by giving the pool owner the choices of how much CYA to add and when. With slow-dissolving cal hypo tablets, maintenance personnel no longer need to choose between convenience and efficacy.

ABOUT THE AUTHOR: Ellen Meyer is Product Safety and Government Affairs Manager with Lonza's Water Treatment business, a leading global supplier of pool and spa chemicals. Meyer has a Ph.D. in chemistry and has been working in water treatment for over twenty-five years.

ONE SOURCE FOR ALL YOUR FLOORING NEEDS

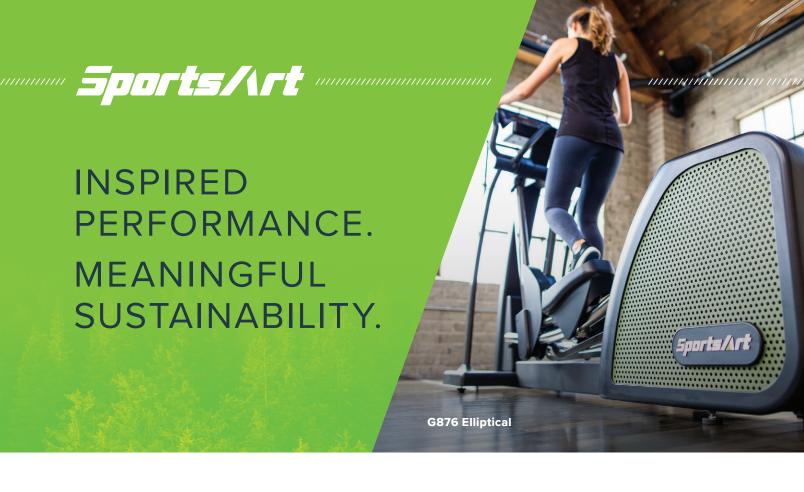








P.O. Box 7038 • Akron, Ohio 44306 800-321-2381 • Fax 330-773-3254 info@mussonrubber.com www.mussonrubber.com



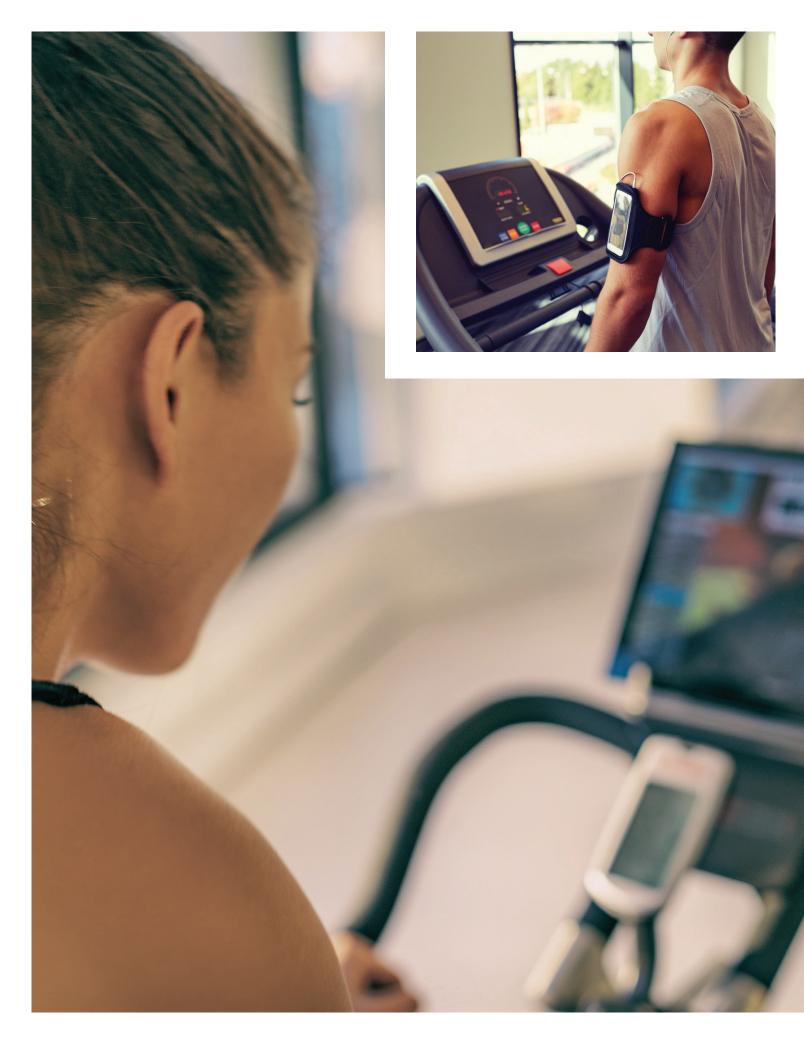
SERVE TODAY'S GREEN-MINDED STUDENTS.

SportsArt and ECO-POWR™ Status offer something no other full line of cardio can—the ability to capture human exertion and turn it into clean electricity. Now your rec center can align campus sustainability goals with student lifestyle and fitness expectations. Student-run environmental initiatives could even help offset the cost, making it easier and more affordable to bring ECO-POWR™ Status to your campus.

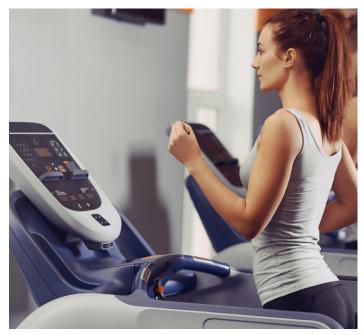




See how sustainable recreation can work for your university.









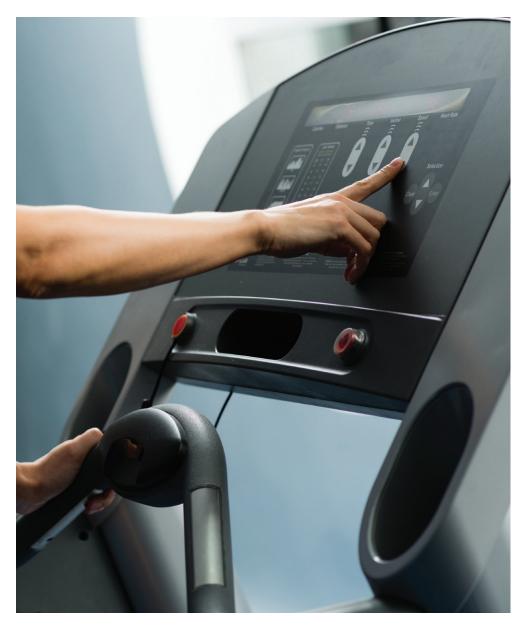
TAPPING INTO STUDENTS' DESIRES WITH

TECH-BASED EXERCISE EQUIPMENT

BY DAVID VINSON, PHD

College students can face an uphill battle when it comes to staying physically fit, not least of all because with newfound independence comes daily opportunities to develop bad habits, dietary or otherwise. Think all-you-can-eat meal plans, limitless soda machines, pizza buffets, and all-nighters fueled by caffeinated, sugary drinks. Between the stress of coursework and balancing that stress with fun and social activities, students often

find that little time remains for exercise.



n ongoing challenge for private universities and colleges has been to create a culture of health and wellness on campus, one that inspires students to make time each day for self-care. The good news for students is that campus-based fitness and recreation centers are designed with stunning ambition, in that they are beautiful and inviting, and also cutting-edge in terms of the exercise equipment and facilities offered. Moreover, students are able to access nutritional programs as well as a wide range of resources oriented towards mental and emotional health. Students are empowered to make positive changes, and they are given the tools to maintain them.

Normalizing Health and Wellness with Mobile Technologies: **Innovation at Harvey Mudd College**

Private universities and colleges are discovering that the ubiquity of smartphones is not a hindrance to cultivating a campusbased culture of health and wellness. In fact, institutions across the country are using technology to reach students in a manner most comfortable to them, through their smartphones. This practice is a fine example of how to normalize health and wellness among a diverse, tech-oriented student body.

Harvey Mudd College (Claremont, California), for instance, has adopted a program called Kognito, an avatar-based app available to all students, and one that will be extended to families, faculty, and staff in the near future.

Kognito teaches students how to be more self-aware as well as to be more aware of their environment with respect to friends, peers, and classmates. Students learn the symptoms of distress in themselves or someone else, and they learn what interventions could be pursued prior to reaching a high level of distress. The broader goal is to demystify stress as that which is unmanageable or scary, and one can imagine the utility of such skills during these uncertain times.

Kognito also makes accessible for students the health and wellness resources available to them on campus and in the community. Examples include the Linde Activities Center (where students can lift weights, play basketball, and enjoy aerobics) as well as Roberts Pavilion (where students can attend recreation classes such as CrossFit, Jungle Gym, Spin, Yoga, and B-Fit, among others). Information regarding a high-quality food program at Harvey Mudd is also available via Kognito, and students can learn how to sustain a healthy diet with lean meats, fruits and vegetables, vegetarian, vegan, and gluten-free options.

Making the Gym "Smart"

Students love their portable technologies their smartphones, wireless headphones, laptops, and so forth. They also value technology that transforms otherwise dull exercise routines into fun, interactive challenges. One example is the treadmill, which was surely an exciting novelty when

continued...

The Future is Now

Featuring VR Kiosks





it was new, yet the appeal of running in a confined space has long since worn off.

Now, one's running time can be cut in half via curved tread specifically designed for sprinting. In fact, some treadmill-like machines are built without a motor, which means that the runner's strides actually power the entire endeavor. The result is far more realistic because the runner determines the pace at all times.

Students also enjoy interactive screens as they exercise, and the market for such innovation has boomed in the last decade. Numerous stationary bikes, rowing machines, and treadmills now offer interactive programs with real instructors and fitness classes, thereby revolutionizing the entire concept of the indoor workout. Users

get one-on-one instruction similar to that of a personal trainer, and they have access to thousands of archived classes that educate and meet their evolving needs.

Students want to experience cutting-edge technologies, and in recent years, the most innovative exercise machines incorporate online programs that are "live," meaning in this case that an instructor can remotely control the user's setting, adjusting incline, decline, speed, and resistance—something very few companies offer. The result is something that entertains and motivates, and users can interact as if they are actually running through the Alps or rowing on the Thames.

Some programs even offer a unique use of Google Maps, which allows users to exercise

by way of real landscapes without a trainer. (As a side note, the tourism industry should be ecstatic since this program effectively allows users to get to know a place prior to visiting it.)

Multi-station strength training machines are another great option for students. Such machines offer a huge slate of strength training options, and some even incorporate Silent Magnetic Resistance and flywheels to eliminate clanging weights. A built-in tablet screen works to provide a range of HIT or cross-fit style workouts, and these can replicate everything from kettlebells to basic weight training.

Thwarting Unhealthy Habits

Because we want our students to thrive in mind as well as body, we must pay careful attention to what they would want in any ideal fitness and recreation center. For these reasons, it is key that we keep a close eye on innovations in the market for exercise equipment. Technologies swiftly become outdated, replaced by those that are more versatile, efficient, and fun.

A fitness and recreation center that offers cutting-edge exercise equipment represents a sound strategy for helping our students resist the unhealthy habits that so easily develop when they leave home for the first time.

ABOUT THE AUTHOR: Dr. David Vinson has a PhD in English with specializations in transatlantic

literature and cultural studies. He is a committed scholar, teacher, and dad. If you ever meet David, avoid the subject of soccer. His fandom borders on the truly obnoxious.

Private universities and colleges are discovering that the ubiquity of smartphones is not a hindrance to cultivating a campus-based culture of health and wellness. In fact, institutions across the country are using technology to reach students in a manner most comfortable to them, through their smartphones.

