

**NSCA**

# COACHES

**CONFERENCE 2023**

**JANUARY 4 – 6, 2023**

Charlotte, NC & Online | 2.0 CEUs

#NSCACoaches23

# STORIES AND TIPS FROM 4 DECADES IN THE PROFESSION

BILL FORAN  
CSCS, RSCC\*E



Bill Foran, CSCS, RSCC\*E  
*Keynote: Stories and Tips from 4 Decades in the Profession*



# ***CONFLICT OF INTEREST STATEMENT***

I have no actual or potential conflict of interest in relation to this presentation.



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- Smallest school in the conference
- Had not had a winning season in years
- We needed to make our athletes better
- Started a Strength & Conditioning program, and we started winning
- Read about the All American Strength Team and contacted Boyd Epley
- Thank you Boyd!



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- 1st ever grad assistant in Strength & Conditioning



- Had not been to a bowl game in 50 years



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Dan Lynch helped Washington State University to lead the PAC 10 in total offense and rushing.



All PAC 10 Performer, Kerry Porter, led the Pac 10 in rushing in 1983 as a sophomore with 1000 yards. Kerry's vertical jump is 31½ inches at 210 pounds for a power quotient of 81.3.

## THE POWER QUOTIENT: An Indicator for Athletic Success

By Bill Foran  
Strength and Conditioning Coach  
Washington State University

The key to any athletic endeavor is power, which is speed and strength combined. The power center of the body is the upper leg and hip area. When an athlete increases his power output through weight training, he will run faster, jump higher, move quicker, and improve his athletic performance.

An excellent indicator of power output is the vertical jump (straight up without a step) because it involves speed and strength. One problem with testing the vertical jump is how can you compare a 250 pound lineman who can vertical jump 26 inches to a 200 pound running back who can vertical jump 31 inches? Who is generating more power?

At Washington State, we take the vertical jump test a step farther to what we call The Power Quotient. With the Power Quotient, all athletes can be compared on how much power they generate because the quotient involves the vertical jump and the body weight.

The Power Quotient is the square root of the vertical jump in inches times the square root of the body weight. (Power Quotient =  $\sqrt{VJ}$  in inches x  $\sqrt{\text{Body Weight}}$ )

Every athlete at Washington State is measured in the Power Quotient. The top 15 in the Power Quotient for both the male and female athletes are posted in the weight room.

The results of the first time we measured the power quotient were very interesting. Of the top 15 male athletes; 7 were on the track team, 6 were on the football team, 1 was on the basketball team, and 1 was on the wrestling team.

**... "but now the development of the upper legs and hips comes first and the upper body second."**

The 7 track athletes were some of the top athletes on one of the best track programs in the country. Washington State has won the PAC 10 track and field championships the last 2 years, has won 40 dual meets in a row, has been the National Dual Meet Champions two of the last three years, finished third in last year's NCAA indoor meet and second in the NCAA outdoor meet.

The six football players were all starters and 4 of them were first team all PAC 10. The basketball player was the starting power forward and the wrestler was the PAC 10 heavy-weight champion.

These results really opened the eyes of our athletes. Many of them had concentrated on the bench press, but now the development of the upper legs and hips comes first and the upper body second.

# ***POWER QUOTIENT***

**$\sqrt{\text{BW}}$  in LBS x  $\sqrt{\text{VJ}}$  in Inches**

15 Top Male Athletes

7 top Track Athletes

- Pac 10 Champions, 2nd in NCAA

6 Football Players

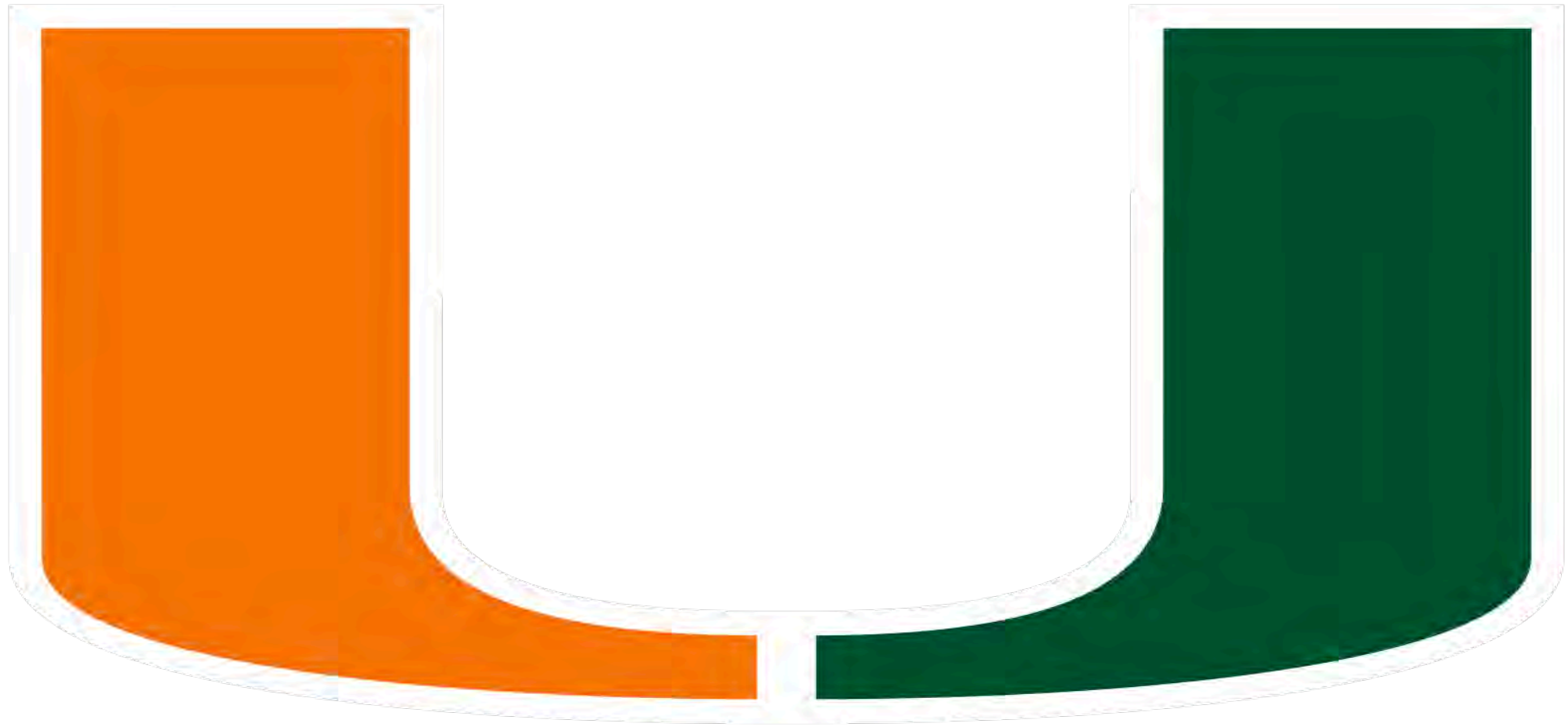
- All Starters, 4 All-Pac 10

1 Basketball Player

- Starting Power Forward

1 Wrestler

- Pac 10 Heavyweight Champion

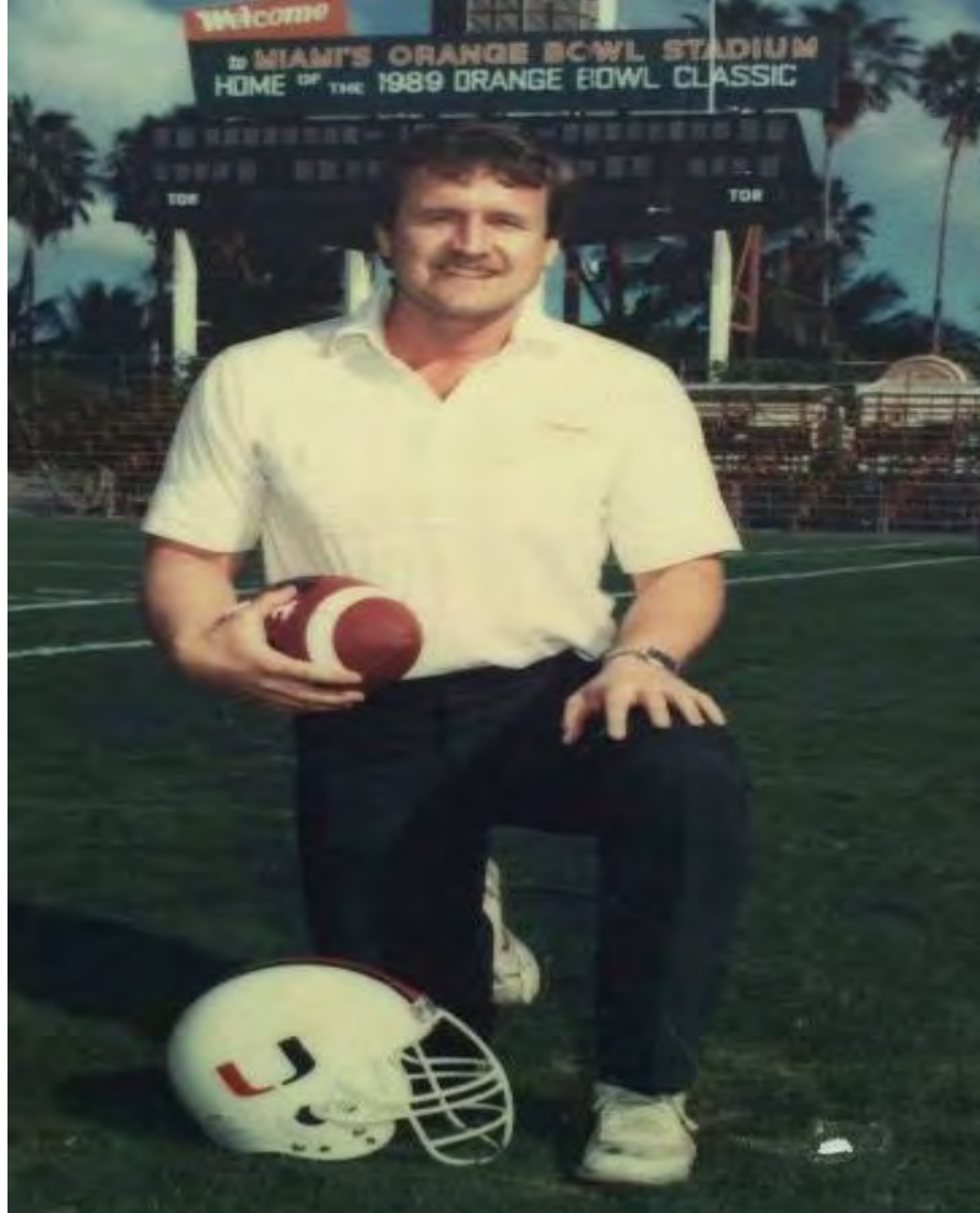


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# ***UNIVERSITY OF MIAMI 1985-1989***

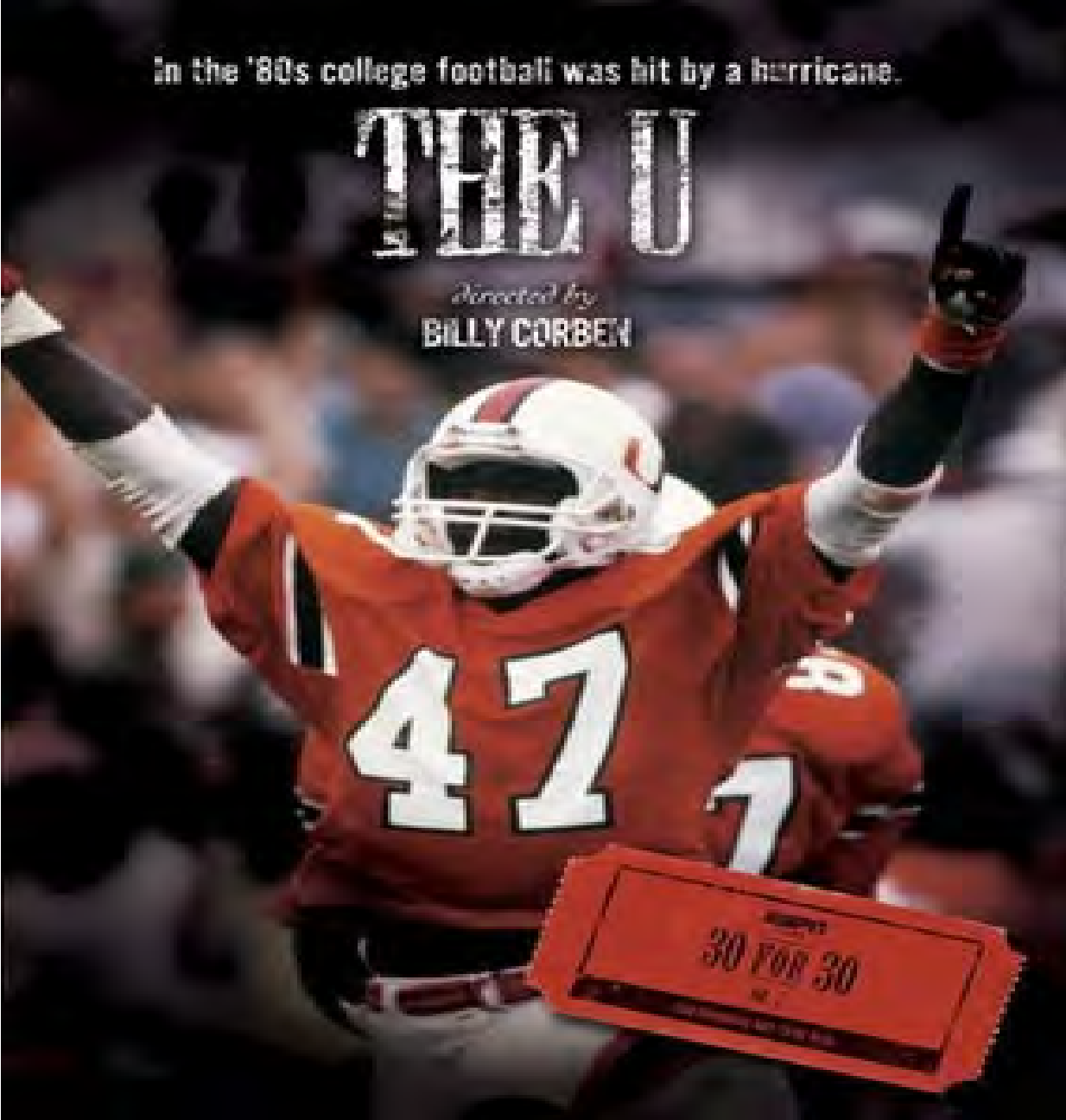
- 55-5
- 2 National Championships
- 2 #2 Finishes



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# ***UNIVERSITY OF MIAMI CONDITIONING TEST***

## 12 Minute Run

1. Has nothing to do with the energy systems involved in football
2. Players train to pass the conditioning test

# ***16 x 110's***

- Became the standard in college and NFL
- Stack magazine called it “The Ultimate Conditioning Test”

“Bill changed football conditioning forever with a strong dose of common sense.”

-Michael Boyle





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# ***WILT CHAMBERLAIN***

“When I was at Kansas, I was a basketball player and a track athlete. They didn’t let basketball players lift weights, but I lifted weights as a track athlete.”

“Everyone thought I dominated because I was bigger than everybody, hell I was stronger than everybody. You have to have a strength and conditioning coach.”

Thanks Wilt!



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# ***RONY SEIKALY***

“I am here to workout, but I don’t squat.”

“We’re doing a split routine. We’ll do upper today an lower tomorrow. We squat differently here.”

"How do you squat differently?"

“We squat correctly.”

# ***RONY SEIKALY***

1st Heat draft pick

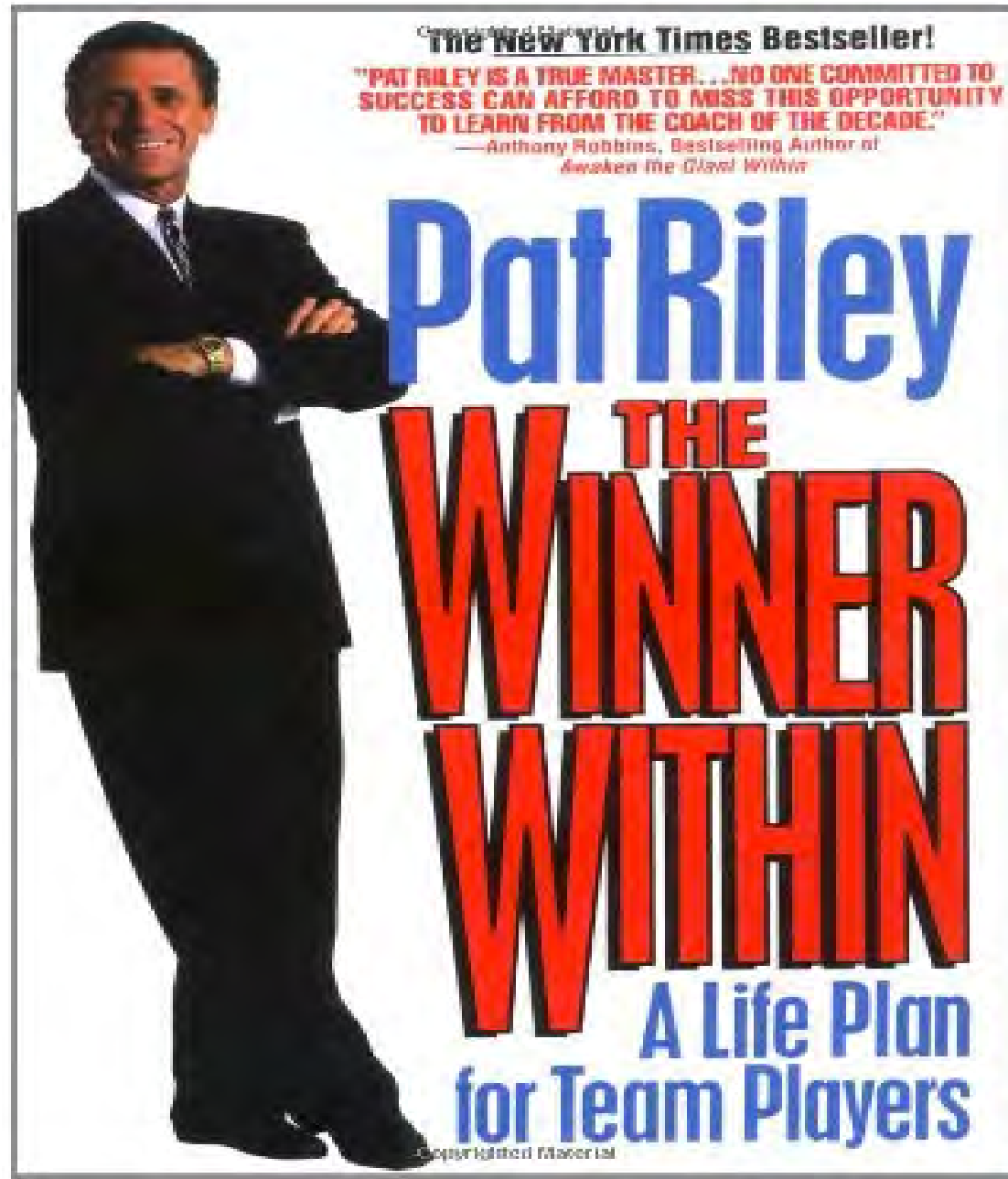
1st season: 6'10" 230 lbs. 8% Body fat. 27" Vertical jump.

2nd Season: 6'10" 252 lbs. 8% Body fat. 30" Vertical jump.

Voted Most Improved Player in NBA

# ***ANOTHER SQUAT STORY***

- Head Coach: “What happened last night?”
- Player: “My legs were sore, Bill made me squat.”

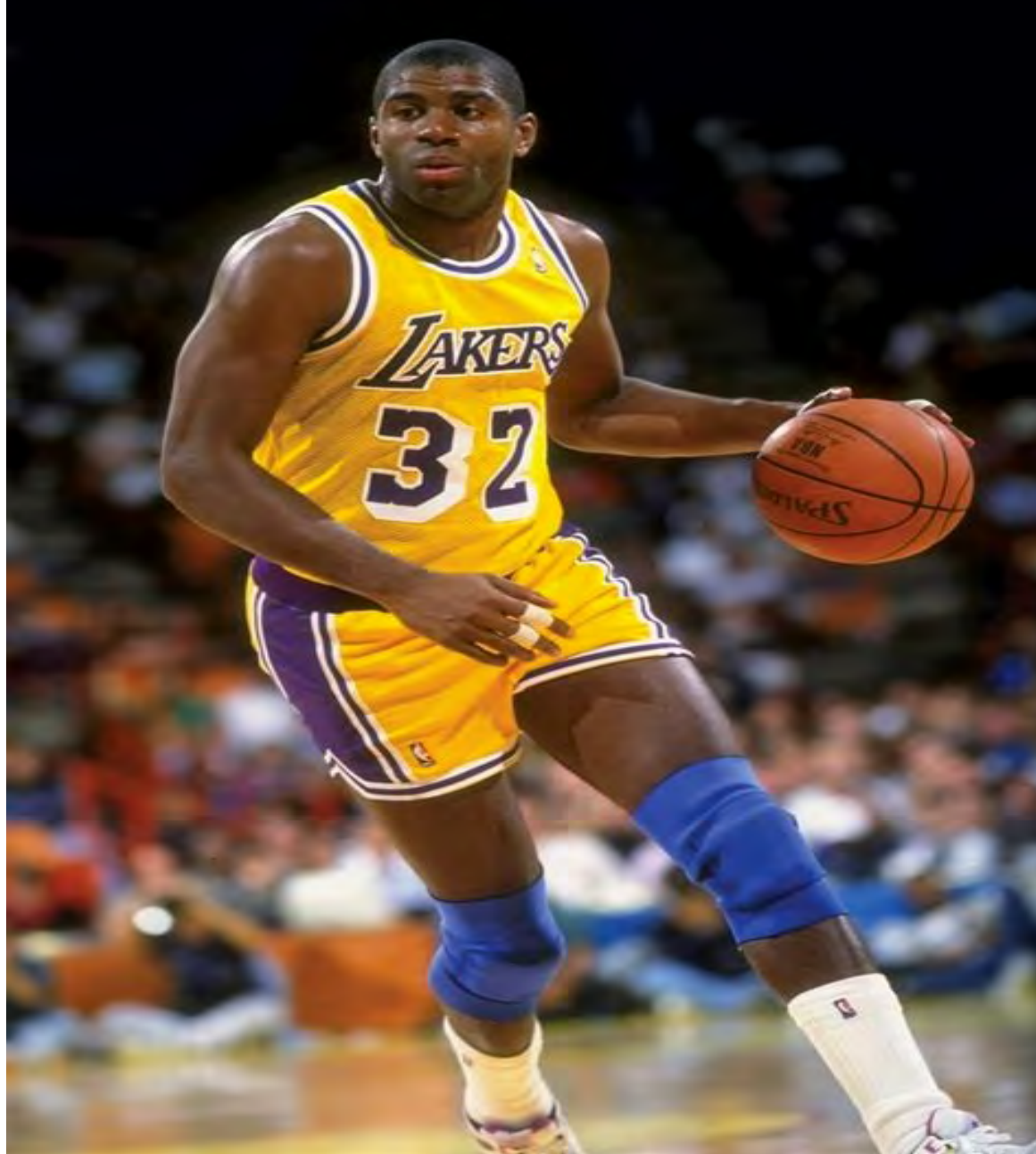


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# ***FIRST MEETING***

- I'm into two things: fundamentals and conditioning. When you have those two things, you have a chance.”
- “You have a year to prove yourself.”



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## ***SECOND MEETING***

“I want you to check the players’ body fat weekly.”

“Don’t worry about the ectomorphs,  
Keep your eyes on the mesomorphs,  
Spend your time with the...  
Fattymorphs.”



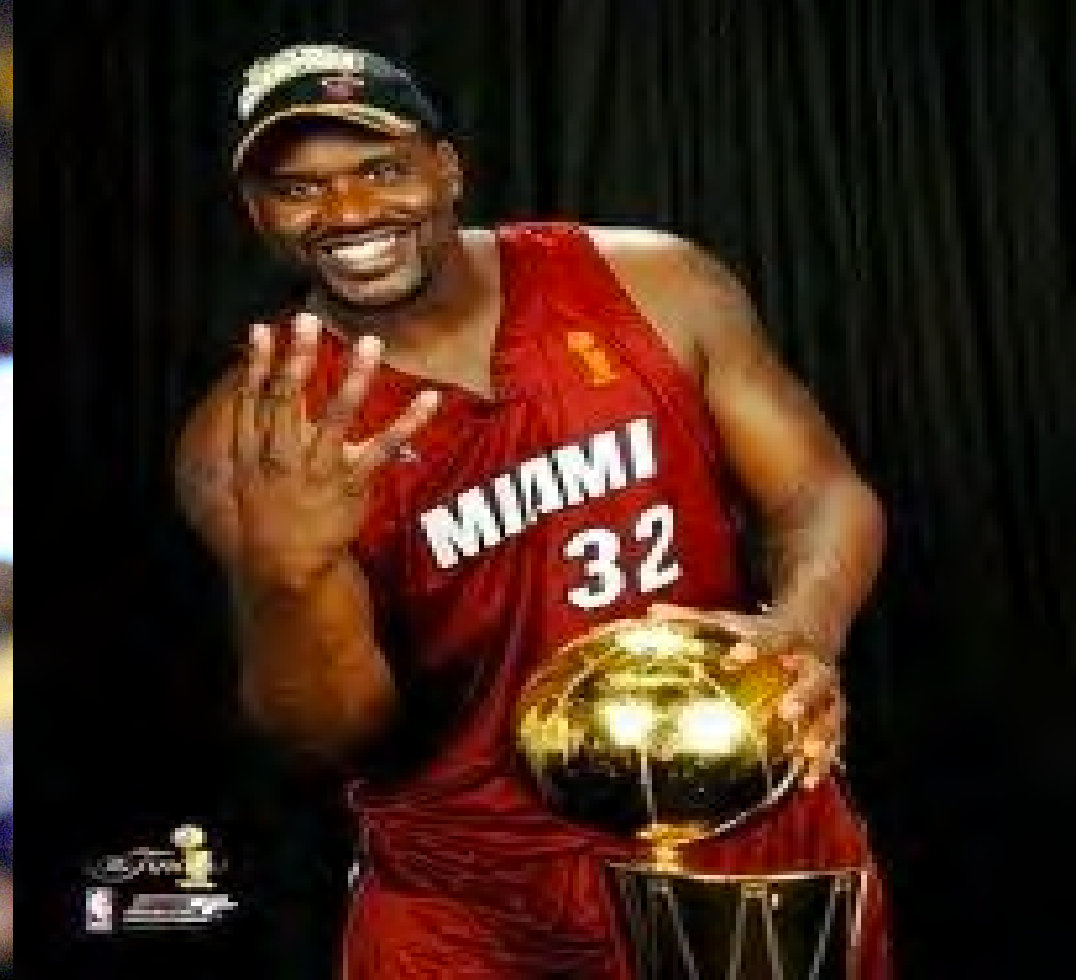
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# ***IKE AUSTIN***

- Came to us in free agent camp at 305 lbs
- Lost 40 lbs - Speed and Quickness came back
- Voted Most Improved Player in NBA



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# ***4 THINGS ATHLETES CAN DO RIGHT NOW TO BE BETTER***

- SLEEP
- HYDRATION
- VITAMIN D
- CREATINE

# ***SLEEP AND ATHLETIC PERFORMANCE***

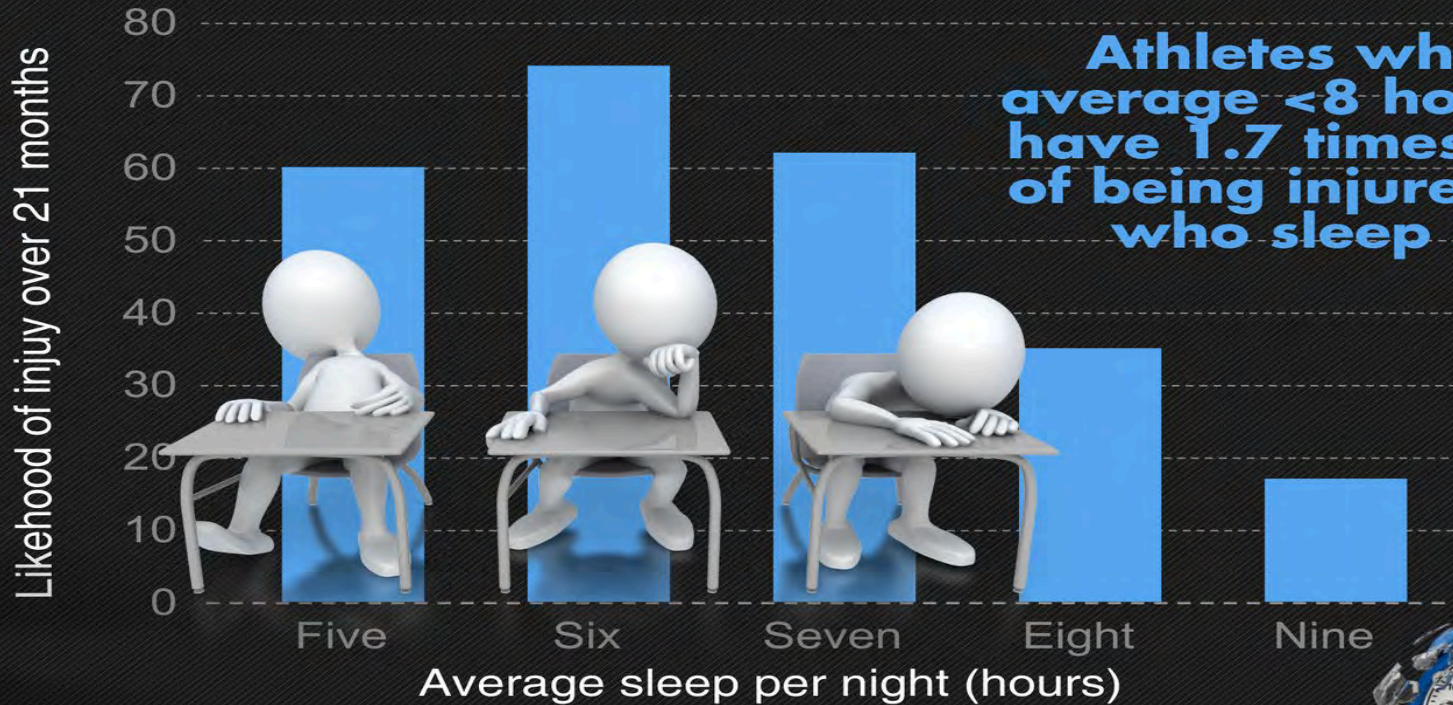
STUDY HAD BASKETBALL PLAYERS SLEEP ~110 MIN LONGER THAN NORMAL

- FT % IMPROVED BY 9.0%
- 3 PT % IMPROVED BY 9.2%
- SPRINT TIMES IMPROVED BY 4.3%

Mah, C. D., Mah, K. E., Kezirian, E. J., & Dement, W. C. (2011). The effects of sleep extension on the athletic performance of collegiate basketball players. *Sleep*, 34(7), 943-950.

# Likelihood of Injury Based on Hours of Sleep per Night

Designed by  
@YLM Sport Science



Athletes who sleep on average <8 hours per night have 1.7 times greater risk of being injured than those who sleep  $\geq 8$  hours



## Reference

Chronic Lack of Sleep is Associated With Increased Sports Injuries in Adolescent Athletes  
by Milewski et al. in J Pediatr Orthop 2014

# Sleep Protects Against The Common Cold

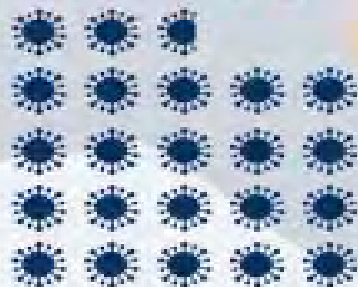
Chances of Catching a Cold When Exposed to the Virus (%)

17.2%



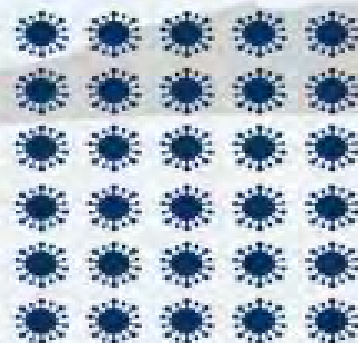
>7  
HOURS

22.7%



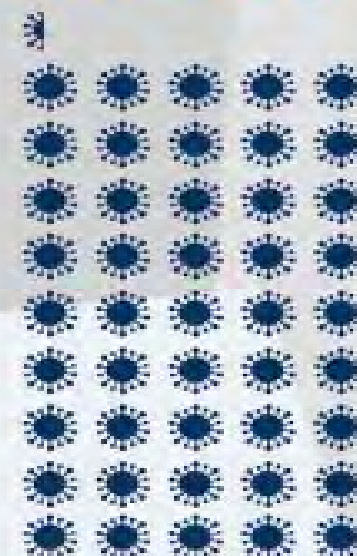
6 TO 7  
HOURS

30%



5 TO 6  
HOURS

45.2%



<5  
HOURS

SLEEP DURATION

Source: Prather et al, 2015

UCSF

# ***MILITARY STUDY WITH SNIPERS***

- 8 Hours of Sleep: 99.9% Accurate
- 7 Hours of Sleep: 90% Accurate
- 6 Hours of Sleep: 60% Accurate
- 5 Hours of Sleep: Less than 50% Accurate

# ***HYDRATION***

- MOST PEOPLE ARE IN A CHRONICALLY DEHYDRATED STATE
- 54.5% OF CHILDREN AGED 6-19 IN THE US ARE INADEQUATELY HYDRATED

Kenney, E. L., Long, M. W., Craddock, A. L., & Gortmaker, S. L. (2015). Prevalence of inadequate hydration among US children and disparities by gender and race/ethnicity: National Health and Nutrition Examination Survey, 2009–2012. *American journal of public health*, 105(8), e113-e118.

# ***WHEN YOU LIVE IN A DEHYDRATED STATE***

- YOU FATIGUE SOONER
- YOUR CONCENTRATION BECOMES IMPAIRED
- YOUR MOTIVATION DECLINES
- YOUR MOOD CHANGES

# ***DEHYDRATION STUDY - BASKETBALL***

- 3 PT % DECREASED BY 18%
- FT % DECREASED BY 11%
- LATERAL MOVEMENT AND SPRINT TIMES WERE MUCH SLOWER

Baker, L. B., Dougherty, K. A., Chow, M., & Kenney, W. L. (2007). Progressive dehydration causes a progressive decline in basketball skill performance. *Medicine and science in sports and exercise*, 39(7), 1114-1123.

# VITAMIN D

VITAMIN D MAY BE THE MOST IMPORTANT SUPPLEMENT YOU NEED.

HAS A CENTRAL ROLE IN MANY BODY PROCESSES INCLUDING:

- PROTEIN SYNTHESIS
- HORMONE SYNTHESIS
- IMMUNE RESPONSE
- CELL REGENERATION
- MUSCLE TISSUE FUNCTION
- BRAIN HEALTH

# ***SIGNS AND SYMPTOMS OF VITAMIN D DEFICIENCY IN ATHLETES***

- STRESS FRACTURES
- FATIGUE
- MUSCLE AND JOINT PAIN
- FREQUENT ILLNESS

# ***VITAMIN D DEFICIENCY AND GAMES MISSED***

- ATHLETES WITH >40 NG/ML AVERAGED 1.12 GAMES MISSED
- ATHLETES WITH <30 NG/ML AVERAGED 2.92 GAMES MISSED
- 1 ATHLETE CONSISTENTLY AT 60 NG/ML HAD 0 INJURIES IN 3 YEARS

# ***CREATINE***

- Most researched supplement in history
- Most effective nutritional aid for athletes
- It's safe and it works

# ***BENEFITS OF CREATINE***

- Increases strength, power, speed
- Improves body composition
- Improves cognitive brain function and memory
- Improves cardiovascular health
- Improves bone health

# ***CREATINE***

“Creatine is the most important supplement for everyone.”

**-Dr. Jose Antonio**

*President of International Society of Sports Nutrition*

- Problems with aging
  - Sarcopenia (muscle loss)
  - Cognitive dysfunction
- Creatine lessens chances of both
- Improves quality of life

# ***YOUR BEHAVIOR NEEDS TO MATCH YOUR GOALS!***



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***A GAME CHANGING DIFFERENCE BETWEEN A  
GOOD ATHLETE AND A GREAT ATHLETE IS  
EXPLOSIVE POWER AND STRENGTH***



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***“STRENGTH IS THE MOTHER QUALITY OF ALL PHYSICAL QUALITIES.”***

-Leo Matveyev  
Father of Periodization

***STRENGTH IMPROVES  
SPEED, AGILITY, BALANCE,  
AND POWER***



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# ***New head coach trying to learn about the team's culture***

1. Does he give a sh\*t?
2. Does he work his a\$\$ off?

Athletic training staff: Gone

Strength & Conditioning Staff: 1 Remained

# ***TIPS FOR YOUNG STRENGTH COACHES***

- Degree
- Certifications: CSCS, RSCC, etc.
- Experience - as much as possible
- Develop great people skills
- Develop a big time work ethic
- Network, network, network

*"Stories of 32 Coaches Who Helped Lay the Foundation of  
What the Strength and Conditioning Profession is Today."*

**THE**  
**GOLDEN**  
**AGE**

**OF STRENGTH  
AND CONDITIONING**

FOREWORD BY

**BOYD EPLEY**



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“If you want to be great, you have to come to the understanding that you have to put in the work.”

-Larry Fitzgerald

# THANK YOU!

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