Study Finds As Pitch Count Climbs, So Do Pitcher Injuries

50 percent of high school pitchers report pain in their throwing arm

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Package Length: 1:37	Content provided by: The Ohio State University Wexner Medical Center

The Ohio State University Wexner Medical Center

NEWS PACKAGE

SUGGESTED TEASE	ACHES AND PAINS ARE PART OF THE GAME, BUT A NEW STUDY FINDS A DRAMATIC INCREASE IN THE NUMBER OF ARM INJURIES AMONG HIGH SCHOOL BASEBALL PLAYERS. DETAILS NEXT IN HEALTH NEWS.
ANCHOR LEAD	THE HIGH SCHOOL BASEBALL SEASON MIGHT BE WINDING DOWN, BUT FOR MANY PLAYERS THAT MEANS SUMMER BALL IS GETTING UNDERWAY. THE CONSTANT DEMAND HAS CREATED AN INCREASE IN ARM INJURIES - WITH A SIGNIFICANT NUMBER OF PITCHERS SAYING THEY EXPERIENCE PAIN DURING THE SEASON. DORIAN CRAFT HAS THE DETAILS ON A NEW STUDY THAT IS LOOKING HOW THESE OVERUSE
(PACKAGE START)	INJURIES OCCUR, AND WHAT PLAYERS AND
CG: Courtesy: The Ohio State University Wexner Medical Center :00 - :03	PARENTS CAN DO TO PREVENT THEM. (NATS - Ethan warming up :02)
Shots of Ethan warming up Shot of Ethan pitching	DESPITE PREPARING HIS THROWING ARM MONTHS IN ADVANCE, ETHAN HAMMERBERG STILL FEELS THE TYPICAL TWINGES WHEN BASEBALL SEASON STARTS. :06
CG: Ethan Hammerberg High school baseball pitcher	"Early in the season I did have some elbow pain." :02
Shots of Ethan pitching	ETHAN ISN'T ALONE. MORE THAN HALF OF HIGH SCHOOL PITCHERS SAY THEY EXPERIENCE PAIN IN THEIR THROWING ARM DURING THE SEASON. :06
	(NATS - ball hitting glove in lab :02)
Shots of experts observing pitcher in lab	TO BETTER UNDERSTAND THESE INJURIES, EXPERTS AT THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER TOOK A CLOSER LOOK AT WHEN AND WHY THEY OCCUR. :07
CG: Mike McNally	<i>"We were looking to see how pain and overuse actually progress throughout the course of the season."</i> :04

Ohio State Wexner Medical	"And then, we also wanted to get a better sense of
Center	actual pain and overuse that was occurring." :04
Shots of Onate watching pitcher	JAMES ONATE (oh-NOT-ee) AND MIKE MCNALLY (mick-NAL-ee) LED THE STUDY.
and reviewing data	TO ACCURATELY ASSESS THE TIMING AND
Shots of pitcher in lab	SEVERITY OF THEIR PAIN, PLAYERS COMPLETED A
	WEEKLY QUESTIONNAIRE VIA TEXT MESSAGE.
Graphic:	RESEARCHERS FOUND THAT INJURIES PEAKED
Graph of pitching injuries	WITHIN THE FIRST FIVE WEEKS AND SLOWLY
throughout season	DECLINED UNTIL THE END OF THE SEASON. :14
	"We see a lot of kids who didn't prepare in the
CG: James Onate, PhD	off-season, and then they get thrown into it." :06
Ohio State Wexner Medical	
Center	PLAYERS ALSO WORE A COMPRESSION SLEEVE
Obete of Ethen mutting an als	WITH AN ACCELEROMETER THAT TRACKED THE
Shots of Ethan putting on sleeve	NUMBER OF PITCHES THEY WERE ACTUALLY
Shots of pitch data on phone app	THROWING, BOTH IN GAMES AND IN PRACTICE. :08
	"We got the data back, it was like 300 total throws, that
	was very eye-opening." :05
Ethan Hammerberg (CG'd	was very eye-openning00
earlier)	THE AMOUNT PITCHERS THROW CAN ALSO BE
	COMPOUNDED BY HOW THEY THROW, SO A HIGH
	TECH MOUND WAS DEVELOPED TO MEASURE THE
Shots of pitcher throwing on	FORCES PRESENT THROUGHOUT THE PITCHING
high-tech mound	MOTION. :08
	"There's some relationships between how fast someone
	throws and how much force is being placed on their
Mike McNally (CG'd earlier)	shoulder and elbow, which is leading to more injuries. :07
	BY STUDYING HOW PITCHERS USE THEIR LEGS
	AND TRUNK, EXPERTS WANT TO TWEAK THEIR
Shots of Onate and McNally	MOTION - HELPING TO RELIEVE SOME OF THE
reviewing 3D pitching model	STRESS ON THEIR ARM. :07
	"The whole goal is to keep the kids safe to be able to do
	what they want to do." :04
James Onate (CG'd earlier)	
	AT OHIO STATE WEXNER MEDICAL CENTER,
Shots of Ethan pitching	DORIAN CRAFT REPORTING. :04
	EXPERTS ALSO RECOMMEND EXTENDING THE
(PACKAGE END)	HIGH SCHOOL SEASON SO THAT GAMES
. ,	POSTPONED DUE TO INCLEMENT WEATHER CAN BE
ANCHOR TAG	SPREAD OUT OVER SEVERAL WEEKS, AS PLAYING
	TOO MANY GAMES IN CLOSE SUCCESSION MAY
	LEAD TO MORE INJURIES.
L	

SOCIAL MEDIA

Share it! Suggested tweet:	Fifty percent of high school pitchers report having pain in their throwing arm during baseball season. How a new study at <u>@OSUWexMed</u> is working to better understand how these overuse injuries occur and how to prevent them from happening. <u>http://bit.ly/2s0ctbH</u>
Suggested post:	Arm injuries in baseball are on the rise. More than half of high school pitchers say they have pain in their throwing arm during the season. A new study at <u>The Ohio</u> <u>State Wexner Medical Center</u> is working to better understand how overuse injuries occur and how to prevent them from happening. <u>http://bit.ly/2s0ctbH</u>

EXTRA BITES

CG: James Onate, PhD, ATC Ohio State Wexner Medical Center	Onate talks about the importance of the study: "The research that we're doing relative to workload, relative to energy creation, relative to movement mechanics, is all about increasing awareness and allowing communication." Onate says personalized pitching plans are the next step: "We're starting to try to pinpoint what's going to be the personalized approach to an individual to be able to throw, and then being able to tweak those things from an individual standpoint, as opposed to one size fits all." Onate talks about his recommended pregame routine: "We have a saying that you get loose to throw, you don't throw to get loose. So we do everything from dynamic bands, to dynamic arm swings, to Y's T's W's, and all our shoulder preparation. We go through a full 15 minute full-body warmup. So they should be really, really warm and loose before they ever pick up a baseball."
CG: Mike McNally Ohio State Wexner Medical Center	McNally talks about how players should prepare for tryouts: "If you know that you're going to be trying out for a team and that's a primary goal, then you should start four to five weeks earlier, a month earlier, in order to start building up your endurance, start building up your arm strength and your muscle capacity."
CG: Mike McNally Ohio State Wexner Medical Center	McNally talks about the importance of taking time off: <i>"We typically like to say don't play any more than nine</i> <i>months out of the year and take three months off as kind</i> <i>of active rest, doing some other things. Still being athletic</i>

	and still participating in sports, but not doing too much in the way of throwing baseballs, swinging bats, that kind of thing."
CG: Ethan Hammerberg High school baseball pitcher	Ethan talks about the value of getting pitch count data back: "He asked me, he was like, "How many throws you think you do when you warm up?" And I was like, "Ninety or something?" And then when we got the data back, it was like 300 total throws, that was very eye-opening."
	Ethan talks about his warm-up process after the study: "Warming up, I try and take it slow. I try and obviously keep the amount of throws as few as possible when I'm warming up, so if I do have to go into a game I'm not overworked my arm so much so to the point that when I go into the game I'm at some huge number of throws."

References

¹Pain and overuse in high school baseball pitchers over the course of a season, American College of Sports Medicine Annual Conference, June 1, 2018. Online here: <u>http://www.acsmannualmeeting.org/wp-content/uploads/2018/05/ACSM18_Abstracts_E_vFIN-web</u>.pdf

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