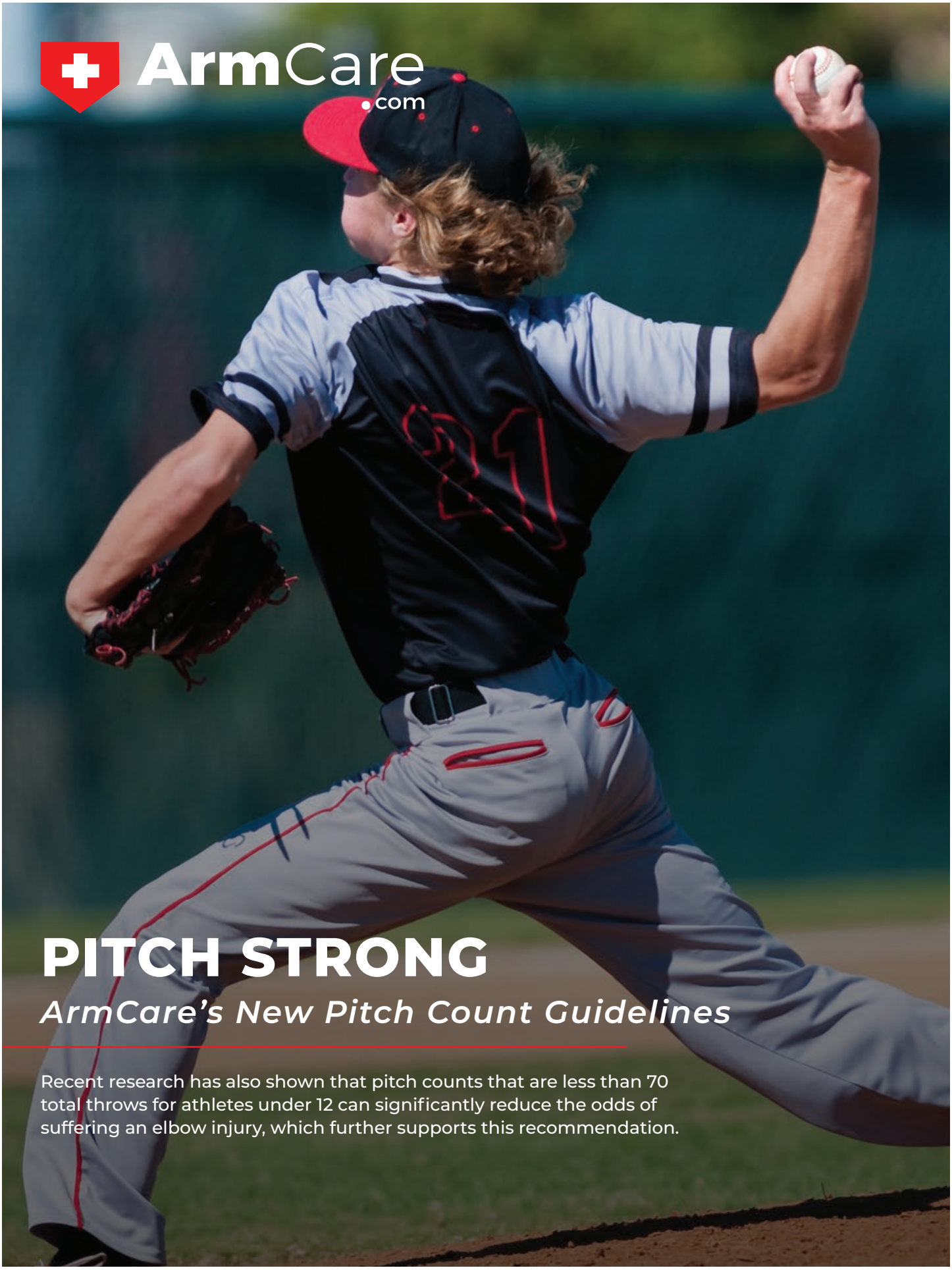

ArmCare.com

PITCH STRONG

ArmCare's New Pitch Count Guidelines

Recent research has also shown that pitch counts that are less than 70 total throws for athletes under 12 can significantly reduce the odds of suffering an elbow injury, which further supports this recommendation.

There is an obvious disconnect that is feeding into the growing trend of overuse injuries in baseball, and if you are aware, you have a good chance of lowering your risk of injury.

In the long run, injuries hurt an athlete's opportunities and affect his or her team's chances of winning.

Additionally, an injured pitcher being removed from the bullpen or rotation can increase the workloads to be shared amongst the remaining pitchers or requires adding a position player to the pitching rotation. Both scenarios increase the risk to other athletes.

Injuries also create a real economic burden, especially at the professional level. Getting some form of pitch count standards implemented is the most critical first step. The injury epidemic will continue if the recommendations are never adopted.

The Pitch Smart Guidelines had been developed originally by ASMI anare the current gold standard that provides a great tool for keeping players healthy. After evaluating the current pitching standards, we believe additional criteria will lessen throwing arm injuries even more. In the ArmCare Pitch Guidelines, we offer six improvements and more precise recommendations to further eradicate arm injuries in baseball.

Athletes under 10 years old are much more variable in their delivery and tend to throw as hard as possible, which leads to more pitches per outing as the athlete fails to find the strike zone. It also makes the game boring and reduces hitting contact, which limits player development as well. Players at this age should focus on practicing pitching mechanics prior to the game environment.

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ArmCare's Pitch Regulations

1 *Wait Until Age 10 to Pitch Against Batters*

We have lowered the maximum pitches thrown at the 10–12 year old bracket to only jump 20 pitches by age 13. We've reduced this number compared to Pitch Smart because the athlete is in a period of life when growth rates are the highest. Bones are growing faster than ligaments and tendons, and therefore the risk of growth plate injuries increases, such as Little Leaguers' Elbow and Little Leaguers' Shoulder.

2 *Reduced Workloads Until Age 13*

Nowadays, athletes are throwing hard from the onset of high school. However, previous pitch counts don't involve a 5-day rotation until age 19. We have added a 5th day of rest to reduce overuse risks and allow for a more balanced weekly schedule for starters' bullpens to occur mid-week. Additionally, the added day will enable more time for strength training and recovery.

Typically, collegiate baseball involves pitching rotations that are longer than 5-days. So why not adopt the same conditions for adolescent starters who are still in a peak growth stage?

3 *Follow a 6-7 day Rotation at Age 15*

ArmCare's Pitch Regulations We do not recommend pitching on back-to-back days during the growth period for athletes. Younger athletes do not recover the same as adults and tend to have less than optimal recovery habits. Therefore, we must allocate a day off between appearances for relief pitchers to lessen risks.

Another benefit of providing days off for relievers is t adding pitchers to a team's roster to satisfy tournaments and increasing opportunities to play for more athletes in handling heavy game schedules.

For collegiate athletes, relievers should never pitch three days in a row, as this does not

occur in professional athletes of the same age competing in lower levels than AAA.

4 *No Back-to-Back Days Under Age 18*

Sometimes pitchers do not perform well and are removed much earlier than their designated maximum pitch counts. As a result, their maximum pitch count in the next outing is a big jump in workload. For example, a pitcher knocked out of the first inning after throwing only 35 pitches and then throwing 100 pitches in their next start. That is greater than a 280% increase in their throwing workload and a huge stress to the arm.

As a rule, if the pitcher does not satisfy 50% of the maximum throwing load, coaches should cap the next outing to 80% of their designated maximum throwing total so that there is less shock to the arm.

5 *Reduce Max Pitch Count if a Player is Removed Early*

The offseason does not involve game competition. As a result, the adrenaline

factor is lower than games, and since velocity is lower, less force on the elbow and shoulder is anticipated during the off-season compared to in-season.

Injury risk is highest in pre-season and the beginning of the season because the body has yet to adapt to the stress of in-season throwing. Therefore, we must have a process to build capacity and recovery of the shoulder and elbow during this early period. Very rarely do pitchers throw to batters more than 2-3 simulated innings in the offseason at any level.

We recommend our graduated pitch count schedule over the first four outings for amateurs, collegiate athletes, and professional pitchers alike.

6 *Early Season Build-Up Over 4 Outings*

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ArmCare's Pitch Strong Counts

Arm Care Pitch Regulations

Age	1st Outing (70%)	2nd Outing (80%)	3rd Outing (90%)	Daily Max (100%)	0 Days Rest	1 Days Rest	2 Days Rest	3 Days Rest	4 Days Rest	5 Days Rest
10 - 12	35	40	45	50		1 - 20	21 - 30	31 - 40	41 - 50	-
13 - 14	49	56	63	70	-	1 - 20	21 - 30	36 - 50	51 - 70	-
15 - 16	60	68	77	85	-	1 - 20	21 - 30	36 - 50	51 - 75	76 - 85
17 - 18	70	80	90	100	-	1 - 20	21 - 30	36 - 50	51 - 75	76 - 100
19 - 22	81	92	104	115	1 - 20	21 - 35	36 - 50	51 - 75	76 - 100	101 - 115

** Ages 10-18: No Pitching on Back-to-Back Days*

** College Pitchers: Cannot Pitch Three Consecutive Games*

** Season Start: Max Pitch Counts Progress Per Week (70%-80%, 90%, 100% Max)*

** Taper: <50% Max Pitches Completed, Reduce Next Game workload to 80% Max*

1. Determine Max Pitches Based on Age

Begin by determining the maximum pitch count for the player based on their age. This is found in the bold box titled Daily Max.

2. Adjust for Early-Season Build-Up over 4 Outings & Adjust Rest Based on Workloads

The next step is to determine the max pitch counts for the graduated onboarding for the first 3 outings of the season. This build starts at 70% of the daily max, then builds to 80%, and then 90% over the first 3 outings.

For example, a 16-year-old player could throw 60 pitches in their first game, 68 pitches in their second outing, 77 pitches in their third outing, and then they are cleared for their full pitch limit going into their fourth outing.

3. Assess Rest Requirements

Once a player is cleared for their daily max, they will use the rest interval based on the number of pitches thrown in the competition. To do this, locate the number of pitches thrown and determine the number of days rest required in the column heading.

For example, a 12-year-old pitcher who throws 35 pitches would require 3 days rest before they pitch again.