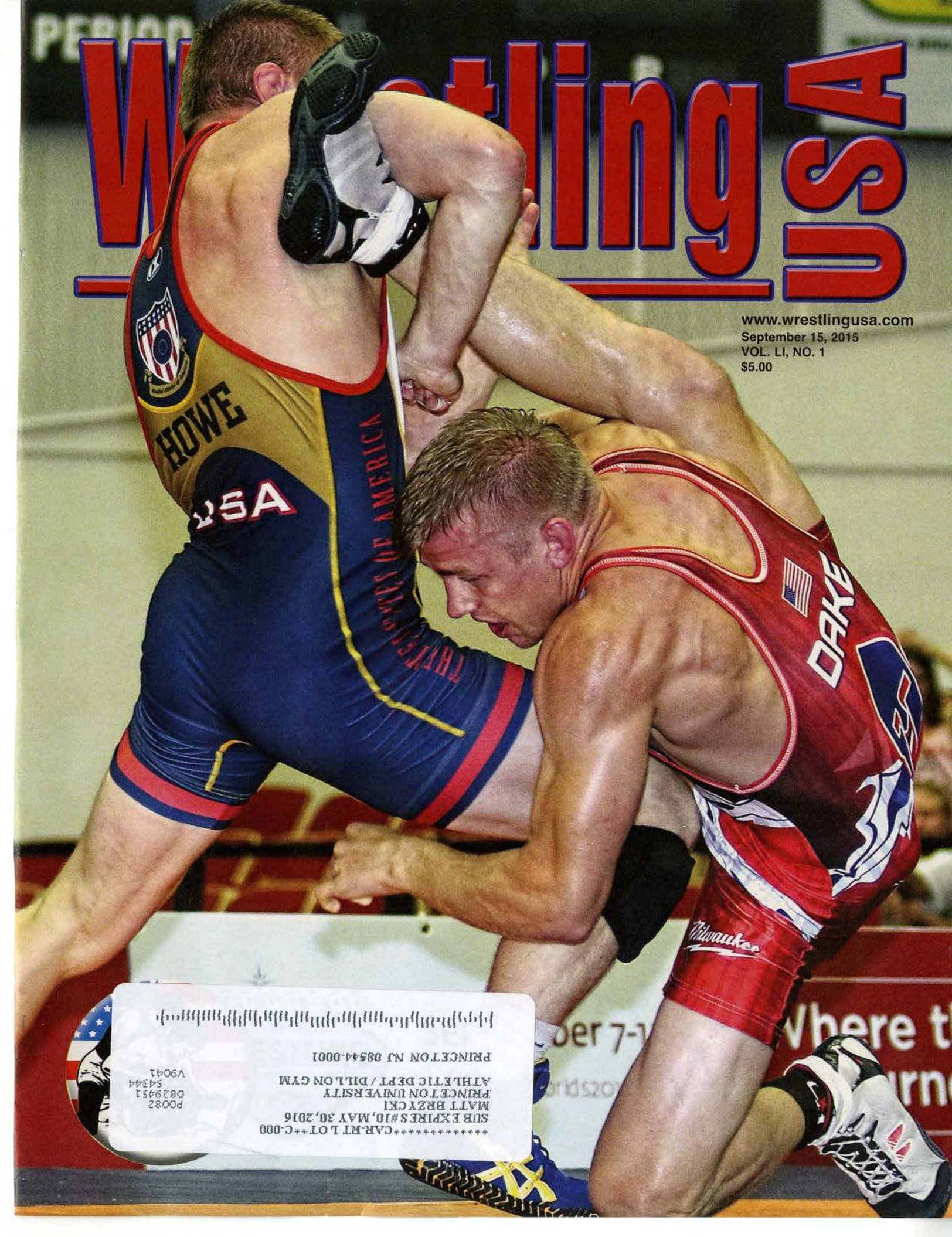


Pull-ups: The Case Against Kipping

By Matthew Brzycki

No exercise garners more heavy criticism and utter disdain than the kipping pull-up. Let's see why this viewpoint is justified.

WHAT IT IS

Essentially, the kipping pull-up is a bastardized version of a standard pull-up. It's characterized by wildly swinging the legs, aggressively snapping/yanking the shoulders and elbows and then barely sneaking the tip of the chin over the bar. To give you a better idea, some in the fitness community describe the motion as "doing the Worm." Frankly, a kipping pull-up is very difficult to watch; in fact, it's downright cringe-worthy. An "advanced" version of it is the butterfly kipping pull-up which is similar except that the body moves continuously in a rapid, elliptical motion. Ugh.

It's important to understand that kipping pull-ups aren't legitimate pull-ups. What constitutes a legitimate pull-up? Who better to consult than the military?

The only branch of the US Armed Forces that incorporates pull-ups in its Physical Fitness Test (PFT) is the Marine Corps. In its PFT, you could do 50 kipping pull-ups and not one would be counted. Not one. The Marine Corps Order (MCO) that governs the proper way to administer the PFT states that "the intent is to avoid a pendulum-like motion that enhances the ability to execute the pull-up. Whipping, kicking or kipping of the body or legs, or any leg movement used to assist in the vertical progression of the pull-up is not authorized. If observed, the repetition does not count for score." The MCO adds that "one repetition consists of raising the body with the arms until the chin is above the bar and then lowering the body until the arms are fully extended." (And in case you're wondering, pull-ups aren't a timed event in the Marine Corps PFT.)

In short, a kipping pull-up isn't a pull-up so let's not even call it a pull-up. Let's call it a kip-up.

Full disclosure: I served in the Marine Corps from 1975 to 1979. And even back then, we did "dead-hang" pull-ups; kipping wasn't allowed.

FAULTY RATIONALE

A number of arguments have been made in support of the kip-up. However, these arguments are largely based on misinformation, nonsense and hype.

ARGUMENT #1

One of the most common arguments that's used to defend the kip-up is that it's more "functional" in "real life" or "real world" applications. For example, it's often pointed out that if you were ever hanging from a ledge, you wouldn't pull yourself up and over it with strict form. Agreed. But you wouldn't pull yourself up and over a ledge with a kipping motion, either.

2015 Dream Team Classic - 113 lbs. Brennen Doebel (Iowa) working to keep control of Airk Furseth (Wisconsin). Doebel decisoned Furseth 5-2. Photo by G Wyatt Schultz.

2015 Dream Team Classic - 145 lbs. Max Thomsen (Iowa) in on an outside single leg on Mike Kemerer (Pennsylvania). Thomsen decisioned the top ranked senior in the country 6-4. Photo by G Wyatt Schultz.

Assuming that you ever find yourself hanging from a ledge in "real life," there are several ways to negotiate it. One way is to shift your body to one side and, at the same time, quickly position that forearm on top of the ledge. You'd repeat this to the other side so that both forearms are on the ledge and then push yourself up. Another way is to swing one leg up, "hook" your heel onto the ledge and then pull yourself over. Or you can try kipping yourself up, in which case let me offer three words of advice: Look out below. Do that and you'll almost certainly lose your grip on the ledge. Remember, you can't wrap your fingers and opposable thumbs around a ledge like you can with a pull-up bar. And if the ledge is too close to the structure, you won't have enough space to kip and will surely hit it with your legs.

Sorry but I can't resist the urge to ask this question any longer: In "real life," how often are you hanging from a ledge? And seriously, if you're hanging from a ledge then you're probably up to no good.

But get this: A similar "real life" argument is that if you fell off the side of a cliff and managed to grab a large root (or tree limb), you wouldn't pull yourself up with strict form.

Okay, hanging from a ledge is unlikely enough but now it's hanging from a root. On the side of a cliff. These are "real life" scenarios? Sounds more like a James Bond movie. But for the sake of argument, I'll play along.

If you fell off the side of a cliff in "real life" then, well, you'd fall off the side of a cliff. The odds of you grabbing a root as you plummet to terra firma at 9.8 meters per second squared – the rate of acceleration due to gravity – are about the same as me being named the starting quarterback of the Philadelphia Eagles. But let's say that you got incredibly lucky and ended up dangling from a root on the side of a cliff. Would you actually try kipping yourself up? Sure, you might be able to wrap your fingers and thumbs around the root for a more secure grip but is there any chance that as you yank up your body you'll also yank out the root? Just asking. And if you're hanging from a root and you're too close to the side of the cliff while facing it, you won't have enough space to kip.

ARGUMENT #2

It's pointed out that kip-ups produce a greater power output than pull-ups. Yeah, but so what? Power is specific to a task. Just because you can produce more power during a kip-up doesn't mean that you can produce more power during anything else.

Despite an abundance of anecdotal claims, there's no scientific evidence that power can transfer from one task to another. Remember, transfer should work in both directions. Think about it: If kipping improves your power in shooting a single-leg takedown, for example, then shooting a single-leg takedown should improve your power in kipping. But it doesn't.

The bottom line is that producing power inside the gym is one thing and producing power outside the gym is another. There's no carryover.

ARGUMENT #3

It's also argued that the kip-up is an entirely different exercise than a pull-up and its execution requires kipping. I'll concede that the kip-up is an exercise. But it's not a good exercise. And if a kip-up requires kipping then so be it. But the fact remains that doing pull-ups in a strict manner and through a full range of motion – chin completely above the bar at the top and arms fully extended at the bottom – is far more productive than doing kip-ups. It's not even close.

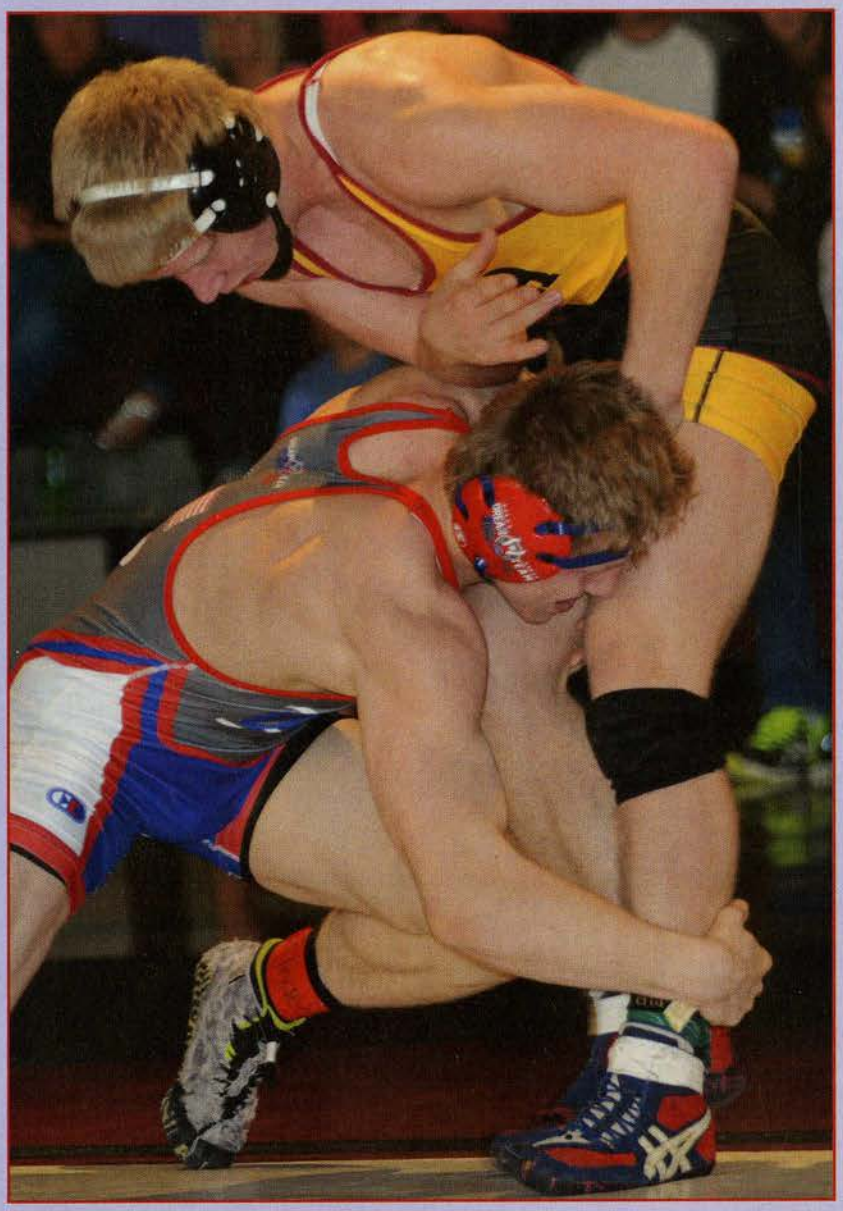
Kip-ups involve an enormous amount of momentum. The more momentum is used to perform a rep, the less muscle is required to perform a rep. And don't forget that all of the momentum is initiated by swinging the legs which significantly reduces the involvement of the true target muscles of a pull-up. Let me be clear: Doing kip-ups is totally useless for increasing the strength of your upper back, biceps and forearms.

A related point that's often made is that because kipping is an intrinsic part of a kip-up then kipping isn't cheating. Okay, I get that. When kip-ups are viewed as a distinctly different exercise than pull-ups then, no, kipping isn't cheating. Unless, of course, you tell anyone who stands still long enough to listen that you did 50 pull-ups when you really did 50 kip-ups. That might not be cheating per se but it's certainly being dishonest.

ARGUMENT #4

Another oft-used argument is that a kip-up is to a pull-up like a push press is to a shoulder press. In other words, a kip-up is simply a variation of a pull-up in the same way that a push press is simply a variation of a shoulder press. And who's critical of the push press?

I'm not buying this one, either. The attempted analogy doesn't pass muster. The main difference is that unlike the kip-up, the push press isn't done for as many reps as possible in a given amount of time.



2015 Dream Team Classic - 182 lbs. Kollin Moore (Ohio) with an ankle pick on Evan Hansen (Iowa). Moore won by major decison 15-6 to help Team USA defeat Team Iowa 30-22. Photo by G Wyatt Schultz.

ARGUMENT #5

Some argue that kip-ups are more efficient than pull-ups. Uh, exactly what definition of efficient are we talking about? Effective? Useful? Economical?

Are kip-ups more effective than pull-ups? Nope. As a means of increasing strength, kip-ups are ineffective.

Are kip-ups more useful than pull-ups? Nope. I don't see how this could possibly be true.

Are kip-ups more economical? Nope. If you can do more kip-ups than pull-ups in the same amount of time, this could be viewed as being more economical – and more efficient – but the term "economical" is also associated with value. So even though more kip-ups might be done in a given time, the reps are ineffective and useless, meaning that kip-ups actually have less value and are less economical than pull-ups.

It's a bit like saying that bouncing the bar off your chest during the bench press is more efficient because you can lift more weight and/or do more reps. The reason why you can do more is because in crashing the weight onto your chest, you compressed it like a coil spring and in uncoiling, you literally get a boost to assist in lifting the weight. This, too, isn't effective, useful or economical.

ARGUMENT #6

A sixth argument is that kip-ups recruit more fast-twitch fibers than pull-ups. Presumably, it's because kip-ups are done more quickly than pull-ups. This notion flies in the face of a widely accepted principle in neurophysiology that's been around since the 1950s. Anyone who believes that more fast-twitch fibers are used during kip-ups than during pull-ups has no understanding of fiber recruitment.

Muscle fibers are recruited in an orderly fashion according to the intensity or force requirements, not the speed of movement. Slow-twitch fibers are recruited for demands of low intensity. Intermediate (hybrid) fibers are recruited when the slow-twitch fibers are no longer able to continue the task. Fast-twitch fibers are recruited only when the other fibers are fatigued to the point that they can't meet the force requirements. So when fast-twitch fibers are being used, all fibers are being used. It has nothing to do with speed and everything to do with need.

To summarize: Slow-twitch fibers are recruited first and fast-twitch fibers are recruited last (which, by the way, means that if you want to recruit more fast-twitch fibers, you must train to – or approach – the point of muscular fatigue). This recruitment pattern remains the same regardless of whether the rep speed was fast or slow or whether you did kip-ups or pull-ups. The lone exception to the orderly recruitment of fibers is when a muscle is made to contract by electrical stimulation. In this case, the order of recruitment is reversed.

ARGUMENT #7

It's said that kip-ups improve proprioception and kinesthetic awareness. Though closely related and used interchangeably, these two concepts are different. Proprioception – the so-called "sixth sense – is internal and cognitive and has to do with the sense or awareness of body and limb position; kinesthetic awareness – or kinesthia – is external and behavioral and has to do with the sense or awareness of body and limb motion. To simplify things, proprioception refers to position (static) while kinesthetic awareness refers to motion (dynamic).

For example, hanging from a bar involves proprioception; pulling the body up to a bar involves kinesthetic awareness. This is true irrespective of whether the pulling involves a kipping motion or a strict, vertical line of ascent and descent.

Can proprioception and kinesthetic awareness be trained or improved? This is highly debatable. See how long you can stand on one leg with your eyes closed. Repeat that every day for a few weeks and it's likely that you'll be able to do it for a longer period of time. Did you improve your proprioception? Or did you improve your skill at standing on one leg with your eyes closed?

Regardless of what you improved, it doesn't transfer to other tasks.

Remember, the Principle of Specificity is in play. So if kip-ups do improve your sense of body position (proprioception) and movement (kinesthetic awareness), it's only for kip-ups.

Note: A field sobriety test – which can involve standing on one leg, walking heel-to-toe in a straight line and touching the nose with the eyes closed – essentially evaluates impairment of proprioception and kinesthetic awareness.

ARGUMENT #8

Yet another argument is that kip-ups are analogous to sprinting or like "a sprint for your arms." This contention is so ridiculous that there's no need to address it other than to ask: Does this mean that strict pull-ups are analogous to jogging or like a jog for your arms?

Believe it or not, a related analogy that has been made is that pull-ups are to kip-ups like walking is to dancing. Yeah, but only if you're doing the Worm.

INJURY POTENTIAL

Doing kip-ups isn't a safe way to do whatever it is that kip-ups are supposed to do. The inherent dangers of kip-ups have been voiced by many professionals in the sportsmedical community.

Kipping produces high forces that must be absorbed by the body. All of the force that's created by whipping the legs gets transmitted right up the body, from the legs to the hips to the lower back to the shoulders to the elbows. In particular, the shoulder and elbow joints get yanked pretty good.

Another risk of kipping lies in the forced hyperflexion of the shoulder. When initiating the kip, the upper arms are moved past the head which basically puts the shoulder joint in the same precarious position as a behind-the-neck lat pulldown and behind-the-neck shoulder press, two exercises that have long since been avoided due to a heightened risk of shoulder injury. When done for high reps, kipping increases the risk of injury to the rotator cuff as well as what's known as a SLAP tear or lesion. (SLAP stands for superior labrum anterior posterior.)

Not to be forgotten is the forced hyperextension of the lumbar spine. This makes the lower back vulnerable to injury, especially when done in a repetitive manner (that is, for high reps).

In looking at this in terms of risks and rewards, kip-ups carry high risks and no rewards. Enough said.

THE LAST REP

Pull-ups should be a regular part of a wrestler's routine. On the other hand, kip-ups have no place whatsoever in anyone's routine. Don't get me started on butterfly kip-ups. And please, don't do 50 kip-ups and brag that you can do 50 pull-ups.

Stay strict and skip the kip.

Matt Brzycki has authored, co-authored and edited 17 books on strength and fitness including four that are devoted to wrestling. His latest book is *A Practical Approach to Strength Training* (4th edition).