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Playing With Intervals

Mikki Lee Martin explains how CrossFit Kids has made interval training both fun and effective for young athletes.

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As a kid, I spent every afternoon playing with intervals—10 minutes of freeze tag, 10 minutes climbing a tree, five minutes of cartwheels—then maybe a game of kickball.

The activities, and the versions of activities I dabbled with, were endless and always fun. My fun.

The sad reality is this type of physical fun rarely exists anymore for today's generation of kids. Games and playtime have become more formal—often mechanical.

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I believe the organic, varied play I grew up with is necessary to ensure our children are consistently exposed to the different stimuli necessary for fundamental motor-skill development. CrossFit Kids has been working on this for a decade, and in February 2014 we were invited to Google headquarters in Mountain View, California, to give a presentation on interval training and how it can be beneficial to kids.

The roundtable was organized by the Aspen Institute's Project Play and chaired by Tom Farrey, author of "Game On: The All-American Race to Make Champions of Our Children."

Interval training involves repeated short or long bouts of higher-intensity work paired with periods of rest or lower-intensity work (3,5). Traditional interval training usually involves cardiorespiratory-endurance activities—such as running, biking or rowing—and is characterized by a work-to-rest ratio and a time frame of at least 20 minutes.

The health benefits of interval training include increased blood flow, increased stroke volume, increased oxygen intake, and more efficient calorie and fat burning, and it can help reduce risk factors of metabolic syndrome (1,4,5,9,10,11,12).

For CrossFit athletes, the "black box" is an important training idea. We push the margins of our experience and options beyond what is considered traditional. We continue to pursue stimuli—or inputs—that produce positive adaptations. Black-box programming is not necessarily concerned with why the input produced the output, only that the output was positive.

Interval training has proven to be a pretty good black-box input, and CrossFit Kids uses traditional and nontraditional



While traditional interval training deals with work and rest, a work-to-play ratio can be successful with kids.

forms of it. We do not follow a work-to-rest ratio at all times. We sometimes use a work-to-play ratio. Play may be restful at times, and not restful at others, such as when we chase balloons. And we do not always assume 20 minutes is best in terms of time domain.

General physical preparedness has been shown to be the best basis for the long-term development of an athlete and a prophylactic to injury (2,7,8). Considering this, we incorporate standard strength exercises, such as deadlifts, squats and presses, as well as gymnastics exercises, into our interval training.

The Tabata protocol is a mainstay, but we program many other types of intervals, as well. For example, we can plug a highly varied combination of exercises into the following protocol, in which the acronym "AMRAP" means "as many reps as possible":

3-minute AMRAP, rest 1 minute, 2-minute AMRAP, rest 1 minute, 1-minute AMRAP

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Intervals ... (continued)

The key with kids is not just to find out what is developmentally appropriate and physically best for them but also to provide a template for a lifelong love of fitness. To engage and retain 95 percent of kids, fitness has to appeal to them. For younger kids, this means it simply has to be fun.

With this in mind, we began using the work-to-play interval while incorporating nontraditional movements in what we call the “earn it” format: Kids perform work to earn a given type of play.

For example: 1 minute of sprinting, 1 minute of burpees and 1 minute of box jumps earn 1 minute on a pogo stick. Repeat 3 times, and 9 minutes of work are completed, as well as 3 minutes of what kids perceive as pure play.

Another example: 3 minutes of work and 3 minutes of play, where we ask our athletes to perform a 1-to-8-lb.

dumbbell clean-press-lunge-lunge complex for 3 minutes. Alternating with this, we give them a bin full of sand or a clay product to play with for 3 minutes. We repeat this 3 times, resulting in 9 minutes of work and 9 minutes of play.

Alternatively, you can also couple something monostructural with an unstructured play activity.

For example: 3 minutes of burpee box jump overs and 3 minutes of playing with water balloons.

The variations of exercises are endless, and this variety is appealing to children not only emotionally and psychologically but also because it fits with how they learn in novel, complex settings that include repetition in a positive environment.

This broad variety of movement, both in type and scope, also provides opportunity for those kids marginalized by



When children link play and exercise, they often create their own workouts at home as part of a lifelong love of fitness.

sport. We have learned over the years that many children in our program create their own workouts at home. In this sense, these kids are reproducing the kind of interval play I engaged in as a child.



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