

the **Crossfit**

JOURNAL

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The Moves

The traditional process of coaching human movement involves the coach first demonstrating a sought after skill and the athlete then attempting the skill after which the coach provides corrections and the athlete again performs the skill hopefully incorporating the coach's inputs. Iterations of these steps are the essence of not only coaching human performance but all teaching as well.

The challenges to applying this familiar process through the Internet and digital media are nettlesome yet fully manageable.

Information technology concerns like bandwidth, speed of connectivity, file size, compatibility of operating systems and browsers mix with more human or pedagogical concerns like how to best represent mechanism and motion, process and dynamics, cause and effect, explanation and narrative to support understanding.

From the first days of planning www.crossfit.com we were convinced that animation could most powerfully and effectively depict the basic movements we were eager

to share with the world. We envisioned moving bodies where the skin would magically disappear while highlighting the muscles and muscular contraction responsible for the movement. Bone, muscle, joint angle, line of action, and forces could all be depicted independent of any other confusing or obscuring data or concern.

Four years later we still believe that animation would be the best medium for depicting movement, process, and cause and effect. The single obstacle to animating the basic movements is cost. Imagine, though, the job that the Walt Disney Company could do in conveying our favorite exercises.

Dismissing animation, our thoughts next and quite naturally turned to video. In fact, our current exercise page, <http://www.crossfit.com/cf-info/exercise.html>, contains short video clips of many of our more commonly used movements.

While these clips are largely adequate to the task, there are several serious problems with video.

First, the images need to be small and of relatively low resolution to keep the file size small enough to handle the connectivity speed of the average viewer. Consequently, our video clips are by necessity small and fuzzy. But, even small and fuzzy they have been inaccessible to many due to platform incompatibility problems with the

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popular media viewers.

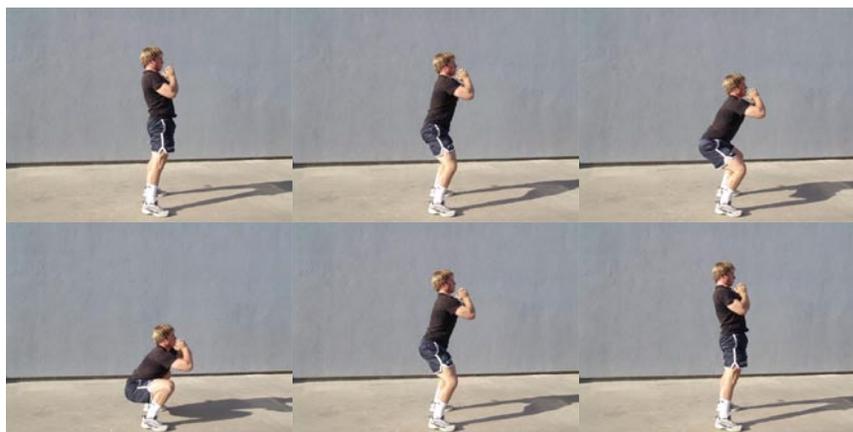
There's another limitation to video that is present even with high resolution and large image area. Critical information, essential to understanding a movement is often obscured or lost among less critical, non-essential data. For instance, when we show our athletes high-resolution video of well executed Olympic lifts, critical points like the point of maximum extension or the "scoop" are completely missed unless we slow the tape down or freeze the frame. Freezing the tape, or frame, typically reduces resolution to a point where the image is near worthless. The process of tape review is so fraught with slowing, stopping, and rewinding that we've found it useful, almost necessary, to convert our favorite instructional videotape to DVD to more readily replay, highlight, and focus on key moments within a movement.

Our experiences with instructional video of complex movements has led us to discover that a series of well chosen still photos often better conveys critical points in movement by capturing them to the exclusion of extraneous, less important imagery. The drawback to the still photos, even when key moments are well caught, is that invariably a sense of the dynamics or process of the movement seems to be blunted and has to be imagined.

We'd been experimenting with carefully selected sequences of still photos when early this year one of our media friends, Dave Young told us about a company called 3cim, <http://www.3cim.com/index.asp>, that produces high-definition web imaging and compression technology.

The 3cim technology provides high-resolution images, viewable on almost any platform or operating system,

Air Squat | [Link](#)



- Back arched
- Look straight ahead
- Keep weight on heels
- Good depth = below parallel
- Chest high
- Midsection tight

The squat is essential to human movement, a proven performance enhancer and a gateway movement to the best exercise in strength and conditioning.

Back Roll to Support on Rings | [Link](#)



- False grip
- Keep the rings in front of your body

This move can be practiced on a bar (or roof edge). The backward roll gives a second method after the muscle-up of getting on top of the rings.

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Box Jump | [Link](#)



- Look straight ahead
- Drive up with the arms
- Come to full extension on or above the box

It is a common fault to look at the feet and landing point in executing the jump. Keep the landing point in your peripheral vision only – look straight ahead. Big guys love this exercise.

Deadlift | [Link](#)



- Look straight ahead
- Keep back arched
- Arms don't pull, they're just straps
- Bar travels along legs
- Push with the heels

The deadlift, like the squat, is essential functional movement and carries a potent hormonal punch. This is core training like no other.

Dumbbell Snatch | [Link](#)



- Start with body centered over dumbbell
- Pull dumbbell straight up
- Arm doesn't pull until hip and legs are done
- As dumbbell rises past hips, drop to catch
- Catch with arm locked
- Dumbbell travels straight up and down

Easy and graceful, even for beginners, the dumbbell snatch offers quick introduction to the basic mechanics of the snatch.

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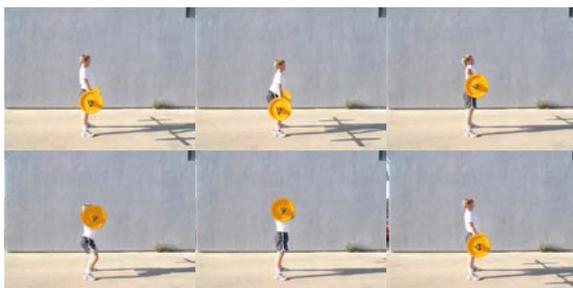
Front Squat | [Link](#)



- Bar rests on chest and shoulders with loose grip – “racked”
- Mechanics like other squats

The hardest part of the front squat may be the “racked position”. Practice until your wrists are “O.K.” with it. Handstands help. This one will force shoulder and wrist flexibility.

Hang Power Clean | [Link](#)



- Starts in hang position
- Look straight ahead
- Keep back arched throughout the move
- Initial dip is to mid thigh
- Explosively extend hip and legs on rebound from dip
- Arms don't pull until hips/legs are extended
- Shrug powerfully before arms bend
- As bar is pulled up, dip under to catch
- Rise to full extension
- Lower bar to hang and repeat

The hang power clean derives its name from the fact that the bar never travels below the knee and is caught above the squat.

Hang Squat Clean | [Link](#)



The Hang squat clean starts from the hang and is caught in the squat. Catching above the squat and lowering is not the same movement. Not coming to full hip extension before dropping and pulling is soon commonly plague progress.

- Starts in hang position
- Look straight ahead
- Initial dip is to mid thigh
- Explosively extend hip and legs on rebound from dip
- Arms don't pull weight up
- Shrug powerfully before arms bend
- Drop under bar and catch in squat
- Squat to full extension
- Lower bar to hang and repeat

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Hollow Rock | [Link](#)



The idea is to rock like a rocking chair with your arms extended overhead and legs out straight. There's a flat spot that creates a visible "clunk" caused by weak contraction of the lower abs. Take the "clunk" out. The smoothness of your rocking speaks to your lower ab strength.

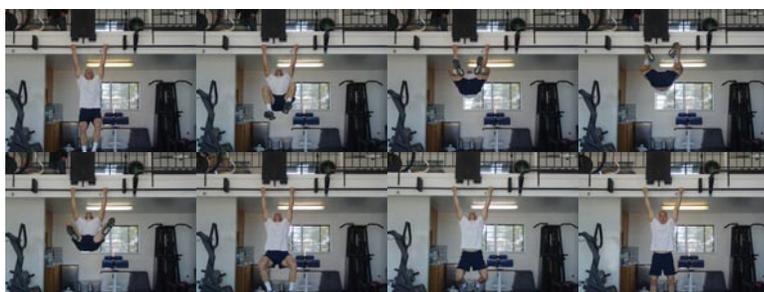
Kettlebell Swing | [Link](#)



- Keep back arched
- Look straight ahead
- Arms locked throughout move
- Chest high
- Flick hips up and forward

There are stylistic variants to the kettlebell swing. To swing to full overhead and keeping the chest as high as possible as the KB strafes the ground at the bottom is "Santa Cruz" style.

Knees to Elbows | [Link](#)



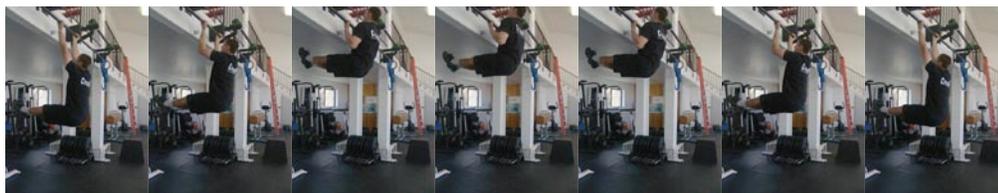
Touch the tip of your elbow to the tip of your knee

Overhand, underhand, bending the arms or not, find the toughest variants. Touching the knee to the upper arm misses the essence of the movement.

The Moves

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L Pull-up | [Link](#)



Keep legs horizontal

When the heels fall below the butt, the set is done.

Muscle Up | [Link](#)



- Use false grip
- Pull rings to chest
- Keep rings in close
- Lean forward while pulling the elbows back
- Press to extension

The muscle-up is astonishingly difficult to perform, unrivaled in building upper body strength, a critical survival skill, and most amazingly of all, virtually unknown.

Overhead Squat | [Link](#)



- Grip as wide as needed
- Go slowly
- Head up!
- Stay on heels
- Break parallel

The overhead squat is an important stretch, perfect for warm-ups, integral to the snatch and will expose most functional inflexibility and any mechanical deficiency in your squat.

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Power Clean | [Link](#)



Same as Hang Power Clean except that the Power Clean starts from the ground. The power clean is caught above the squat. The squat clean is caught at the squat or below. Both start from the floor unless the designation “hang” is used.

- Starts from ground
- Look straight ahead
- Keep back arched throughout the move
- Pull with hips and legs only
- Explosively extend hip/legs as bar approaches mid thigh
- Arm don't pull until hip/legs are extended
- Shrug powerfully before arms bend
- As bar is pulled up, dip under to catch
- Rise to full extension
- Lower to hang and then to ground

Push Jerk | [Link](#)



- Dip (quick drop of the hip)
- Drive (rebounding extension of leg and hip)
- Press and dip (press overhead while dropping hip again)
- Rise to full extension (extend hip and leg again)
- Lower bar to shoulders and repeat

More functional, efficient, and effective than the push-press, this is an important lift. The push-jerk with a great cycling time is a powerful conditioning tool.

Push Press | [Link](#)



- Dip (quick drop of the hip)
- Drive (rebound extension of leg and hip)
- Press

A gateway movement to the jerks, the push press is an important introduction to the “core to extremity” nature characteristic of most functional movement.

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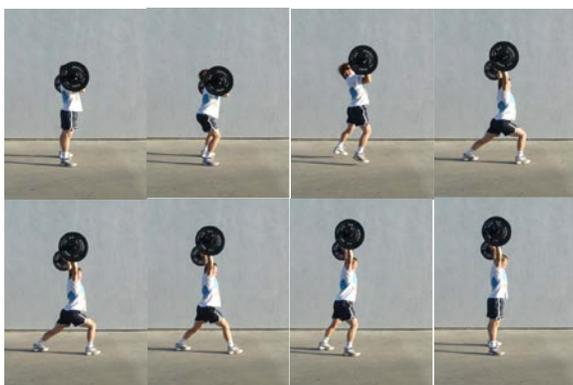
Snatch | [Link](#)



The snatch is the “quickest lift” and the other half of Olympic weightlifting – the “clean and jerk” being the other.

- Look straight ahead
- “Overhead squat wide” grip
- Back arched
- Extend hip and legs slowly
- Explode at top of thighs
- Keep arms locked until hip/legs are at full extension
- Duck under and catch in full squat with arms locked overhead
- Rise to full extension

Split Jerk | [Link](#)



- Dip
- Drive
- Jump and split one foot forward, one foot back
- Front foot back
- Back foot front

Land in a narrow stance/track but wide split. Land with the front leg bent and flatfooted and the rear leg nearly straight and on the ball of the foot.

Squat Clean | [Link](#)



- Start on the ground
- Look straight ahead
- Keep back arched
- Pull with hips and legs only
- Explosively extend hip and legs as bar approaches mid thigh
- Arms don't pull weight up
- Shrug powerfully before arms bend
- Drop under bar and catch in squat
- Squat to full extension
- Lower to hang and then to ground

Same as Hang Squat Clean except that the Squat Clean starts from the ground. The squat clean is caught at the squat or below. The power clean is caught above the squat. Both start from the floor unless the designation “hang” is used.

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Editor

Sumo Deadlift Highpull | [Link](#)



- Start on ground
- Wide, "Sumo", stance
- Take narrow grip on bar
- Look straight ahead
- Keep back arched
- Pull with hips and legs only until both are at full extension
- Flick hip near full extension
- Powerfully shrug
- Immediately pull with arms continuing the bars travel up
- Keep the elbows as far above your hands as possible
- Bring the bar right up under the chin briefly
- Lower to hang
- Lower to ground

For range of motion, line of action, and length and speed of action, the Sumo Deadlift High Pull is a great conjugate to the "Thruster". At low loads this is our favorite substitute for Concept II Rowing.

Thruster | [Link](#)



- Start from standing and "racked" (bar on chest and shoulders with loose grip)
- Lower to full Front Squat
- Rise to full hip and leg extension
- Continue the bars acceleration upward with a powerful press to lockout
- Lower bar to "racked" position
- Repeat

Long line of action against the normal force of gravity with a load plus bodyweight, the Thruster is one of the most profound accelerations possible. The movement works from full flexion to full extension at the ankle, knee, hip, shoulder, and arm.

Turkish Getup | [Link](#)



- Start flat on back with bar held overhead by one arm
- Keep eyes on bar
- Keep arm perpendicular to floor and perfectly straight
- Rise to stand by any means available
- Switch arms and lower to starting position
- Repeat

This tests and advances the margins of our capacity to stand from the ground. With a barbell and at bigger loads the TGU becomes interesting. Keeping your eyes on the load, moving slowly, and maintaining a straight arm are critical to the outcome.

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Walking Lunge | [Link](#)



- Step far and long
- Pull yourself forward with the leading leg
- Step past the supporting foot and reach out again
- Repeat

Try not to lean forward and squat up from the outstretched posture. Focus on pulling the body forward and up simultaneously.

Wall Ball | [Link](#)



- Start from full squat
- Look over top of ball at target
- Keep elbows in
- On catching, recoil to full squat
- Repeat

Our record for a ten-foot target and 20 pound Dynamax ball is 150 shots in 3:52.

Windshield Wipers | [Link](#)



- Keep legs straight
- Bring feet up to bar
- Rock legs 90, or more, alternately to the left and right

Great stretch! Don't let go!

The Moves

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with textual overlays, and voiceover, a magnifier – all in a relatively small file size that can transition automatically from one image to another at a rate controlled by the viewer. Eureka!

The 3cim technology preserves much of the dynamics of video with all the advantages of resolution and focus available with still photos.

We have taken the moves for which we get asked most frequently to explain and produced 3cim files for them. After you, CrossFit Journal subscribers, have had the chance to review these files we are going to offer them from the exercises page of the CrossFit site.

We are also inviting anyone interested to submit a series of photographs taken of any move you'd like to see featured along with any text, arrows, and voiceover you feel will help teach your move. Most inexpensive digital cameras now have quick capture capacity for short bursts – perfect to capture a single movement.

We are asking the gymnastics coaches, lifting and throwing coaches, climbers, and the other experts within our community to make a contribution of photos and text to the CrossFit exercise media collection and we will sponsor the conversion to 3cim and host the images on our site giving the author credit.

If we could capture Roger Harrell's Drills and Skills, www.drillsandskills.com, some lifts and throws from Dan John, lifts from Mike Burgener, more gymnastics contributions from Chris Sommer, and some basic climbing moves from Mark Twight, the CrossFit digital exercise library would be the best collection of instructional fitness media anywhere on the Net.

Having a top-drawer digital fitness media

library we'll be covered on the outbound – sending the right information. There is though the question of the inbound information – being able to review the technique and mechanics of individuals from our community. We are setting up a section on the CrossFit message board where anyone can post a short video clip or sequence of still photos of their performance and the gang on the board will critique the movement.

We can together build and support a community whose works are beyond the talents, genius, and capacities of anything seen before. Let's get at it.

end.

Are you having trouble seeing the 3cim images?

If so please [\[click here\]](#) to troubleshoot.

the **CrossFit**
JOURNAL

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