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COMMON MOVEMENT SUBSTITUTIONS

DURING PREGNANCY

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CROSSFIT SCALING GUIDE FOR

PREGNANT AND POSTPARTUM WOMEN

The following guide is meant to help coaches and pregnant women understand the common recommended scaling options throughout pregnancy. Every pregnancy and person is different, so what works for one pregnant woman may not work for another. Above all, women should listen to the advice of their doctors and listen to their bodies. If something causes discomfort, they should stop and/or try a different approach. When in doubt, they should scale further.

As coaches, our job is to keep both mom and baby safe and offer various options for workouts. Coaches should be careful to never treat pregnant women like they are handicapped. Although pregnancy is not the time to set new PRs or aim for the top of the gym's leaderboard, most pregnant women can still enjoy CrossFit classes throughout their pregnancy by following the suggestions below and the guidance of their doctor.



A NOTE ON CONTRACTIONS

Pregnant athletes should always be mindful of contractions. If they feel tightness/contractions start to happen, they should bring down the overall intensity, drink some water, and take a breather or stop altogether. They should never feel more than 4 contractions within an hour (especially earlier on in pregnancy) unless of course, they are ready for birth.

TRIMESTER SPECIFICS

First Trimester:

In the first trimester, little may change as far as training. Sit-ups and bench press may still be performed. Training right now may look pretty similar to pre-pregnancy. Women can likely continue to use their regular weights but should be mindful of overall intensity. Max effort lifts should be approached with a more moderate effort. Lifting at 70% 1 RM for 8-12 REPS is typically advised. Also, the intensity level in workouts should be reduced to 70-80%. A good way to gauge this is that athletes should keep a conversational effort level. If the coach asks them how they're feeling mid-workout, they should be able to answer with a sentence instead of a few gasped words.

Second Trimester:

Women in their second trimester may now need to avoid exercises that involve lying on their back for a prolonged period because it can limit blood supply to both mom and baby. Some women can continue to bench press comfortably and some cannot. Women should listen to their bodies. If they feel lightheaded upon rising from a bench, they should discontinue the exercise. Sit-ups should now be avoided due to the increased risk of diastasis recti. Additionally, the size of the woman's growing belly will become a factor in whether or not they can safely and/or comfortably perform certain movements.

During pregnancy, the hormone relaxin is released to help enable the pelvis to expand during birth, which therefore increases the laxity (looseness) in the ligaments around the pelvis. Because of this, pregnant women tend to have decreased coordination and balance. Exercises that involve the risk of falling should be avoided, such as inversions, rope climbs, kipping pull-ups, and box jumps.

Overall intensity both during metcon and strength training should decrease again in the second trimester. It's also worth noting that the extra load these athletes are carrying should be considered as part of their intensity, meaning that something as simple as an air squat is more intense because it is "weighted".

Third Trimester:

Athletes in their third trimester should continue to avoid exercises that involve the risk of falling. Keep in mind that balance may become awkward during these final few weeks. Additional movements may now need modified due to a growing belly and based on comfort level. Intensity should also be decreased even further.

Coming back from Pregnancy:

Often, coming back is harder than pregnancy, and learning how to appropriately scale/ load workouts during that transition back is crucial. If a woman goes from six weeks of doing nothing to thinking she can jump back into a class workout, her chances of getting a hernia/ injury are pretty high. During those first weeks back, slowly incorporate breathing exercises and bodyweight movements to help support that transition.

A NOTE ON CONING / DIASTASIS RECTI

Coning during pregnancy occurs when the connective tissue in the abdomen bulges out along the midline in a cone shape. This tends to occur due to diastasis recti, which signifies that the abdominal muscles are separating. All pregnant women will experience some degree of diastasis recti in their 3rd trimester. While that's unavoidable, there are better ways to move and activate the core to prevent worsening it. Both athletes and coaches should look for "coning" during exercise. If the abdomen assumes the shape of a cone when doing certain activities, that specific activity should be avoided/modified.

In the second trimester, women need to be cautious with handstand walks and handstand push-ups. Just because she can, does not always mean she should. When we press, our core is instantly activated. Most women will not notice their core cone. This is where mindful coaching takes place. The same applies to pull-ups and other "hanging" movements. It all depends on the athlete. If you see a female's stomach begin to cone, then they most likely need to switch to a non-hanging movement like a ring row or dumbbell row.

Remember, it's NOT possible to prevent rectus diastasis. The core and muscles have to separate in order to grow the baby. It's different for all women depending on how strong their core was prior to pregnancy, how many pregnancies they've had, and more. Although it's not avoidable, we can try reducing the damage as much as possible through proper breathing techniques in order to keep the core strong and by learning how to engage the lower pelvic floor muscles. In all movements, athletes should focus on keeping their core tight and using proper breathing mechanics.

MOVEMENT	MODIFICATION OPTIONS	NOTES
[RUN]	<ul style="list-style-type: none"> • Sled drag or sled push • Row • Bike 	<p>These options decrease the impact that is often uncomfortable when running while pregnant. Adjust weight and/or distance so the athlete works for about the same amount of time she would spend on the run.</p> <p>Some women may struggle with incontinence on longer runs. If that's the case, she could break up longer runs into intervals of shorter runs coupled with another movement (like Kettlebell swings) in the middle.</p>
[DOUBLE-UNDERS]	<ul style="list-style-type: none"> • Singles or fewer double-unders. • Light kettlebell swings for half the number of double-under reps. • Bike 15 seconds for 15 double-unders • Plate step-ups or plate hops 	<p>If jumping becomes uncomfortable, women should switch to the kettlebell or bike.</p> <p>Other signs that they should modify are heaviness in the pelvis, leaking, and pelvic pain</p>
[ROW]	<ul style="list-style-type: none"> • Shorten the stroke length in the catch position and push the knees to the side • Raise damper to 7 or higher because stroke length is greatly decreased • Substitute sled pull, sled push, or bike 	<p>Remind pregnant women to keep their core/ back upright while rowing. There may be less hinge at the hips, due to the size of the belly. Focus on driving through the heels and using the glutes / posterior chain.</p> <p>Once their belly grows beyond a certain point, many pregnant women find that while they can still row, their limited range of motion and stroke length makes it no longer an effective option. Substitute a sled pull, sled push, or running if they are still comfortable running.</p>

<p>[BOX JUMPS]</p>	<ul style="list-style-type: none"> • Scale box height • Step-ups. • Weighted step-ups with dumbbells to a lower height (cut total reps in half) • No Box: Reverse Lunge to Knee Drive 	<p>As the athlete's belly begins to grow in the second trimester, women should discontinue box jumps due to the risk of falling.</p>
<p>[BURPEES]</p>	<ul style="list-style-type: none"> • Perform with hands on a raised surface such as parallettes or bar in a squat rack 	<p>In the second trimester, athletes should avoid jumping over the bar in "burpee over bar" reps due to the risk of falling.</p>
<p>[BURPEE BOX JUMPS]</p>	<ul style="list-style-type: none"> • Perform burpee with hands on a raised surface, such as parallettes or a bar in a squat rack. Then step up onto a box. 	<p>As the athlete's belly begins to grow in the second trimester, women should discontinue box jumps due to the risk of falling.</p>
<p>[KETTLEBELL SWINGS]</p>	<ul style="list-style-type: none"> • Lighter kettlebell • Russian swings (to eye level) • Kettlebell deadlifts • Good mornings 	<p>Some athletes begin to feel discomfort with kettlebell swings as their belly gets bigger.</p>
<p>[SQUATS]</p>	<ul style="list-style-type: none"> • Adjust depth and load for comfort • Front Squat to Box - Assists with Balance 	<p>Pregnant athletes should not be straining excessively during lifting. As a general recommendation, they should use no more than 70 percent of their pre-pregnancy 1-rep max after their first trimester. Coaches will need to adjust some rep schemes, such as subbing a moderate 5x5 for a 1-rep max. A wider stance or sumo stance may be more comfortable to accommodate the growing belly.</p>

<p>[DEADLIFT]</p>	<ul style="list-style-type: none"> • Scale load • Use sumo stance once belly interferes with thighs • Elevated Sumo Deadlift • Elevated Conventional Deadlift 	<p>Pregnant athletes should not be straining excessively during lifting. As a general recommendation, they should use no more than 70 percent of their pre-pregnancy 1-rep max after their first trimester. Coaches will need to adjust some rep schemes, such as subbing a moderate 5x5 for a 1-rep max.</p>
<p>[BENCH PRESS]</p>	<ul style="list-style-type: none"> • Shoulder press • Push-up • Elevated/modified push-up • Incline bench press by elevating the bench, using an incline bench, or performing on a physioball 	<p>Women in their second trimester may need to avoid exercises that involve lying on their back for a prolonged period because it can limit blood supply to both mom and baby. Some women can continue to bench press comfortably and some cannot. Women should listen to their bodies. If they feel lightheaded upon rising from a bench, they should discontinue the exercise.</p>
<p>[OLYMPIC LIFTS]</p>	<ul style="list-style-type: none"> • Scale load • Scale range of motion (e.g., lift from the hang instead of the floor) • Use dumbbells instead of a bar • Elevated Double Dumbbell Hang Snatch 	<p>Some women have no problem performing Olympic lifts throughout pregnancy, while others do not want to pass a barbell by the belly once it sticks out. Modify according to the athlete's preference and comfort level. Some women may be more comfortable breaking down the movement, such as changing a squat clean to a power clean + front squat.</p> <p>Note: as the bar path moves further away from the athlete's center of gravity, they are more likely to overuse unintended muscles or challenge their core more than necessary. In this case, switching to a dumbbell would be best.</p>

<p>[PULL-UPS]</p>	<ul style="list-style-type: none"> • Strict pull-ups: sub 1 strict rep for every 3 kipping reps • Ring rows • Bent-over dumbbell rows • Body rows on a low pull-up bar 	<p>Some women are ok to kip throughout pregnancy. Others find it somewhat painful or experience a “tug” on their stomach. If that’s the case, strict pull-ups should be done. Past 3-4 months, some athletes choose to remove kipping motions because of the increased risk of diastasis recti.</p> <p>Pull ups are notoriously difficult to manage diastasis pressure because of the arms overhead. Women should be especially mindful of pressure control.</p>
<p>[SIT-UPS] [GHD SIT-UPS] [TOES-TO-BAR] [KNEES-TO-ELBOWS]</p>	<ul style="list-style-type: none"> • Plank hold • Sideways walking plank: travel horizontally in a plank position, about 20 feet for every 20 sit-ups • Side plank hold 	<p>Sit-ups, GHD sit-ups, toes-to-bar, and knees-to-elbows should be eliminated after the first trimester.</p> <p>In the first trimester, Reduced Toe to Bar is a great modification for Toe to Bar. Pelvic Tilts are another great alternative, especially for women experiencing coning.</p>

<p>[HANDSTAND WALK]</p>	<p>On Wall:</p> <ul style="list-style-type: none"> • Alternating Shoulder Taps on Wall • Wall Handstand Hold <p>On Box:</p> <ul style="list-style-type: none"> • Elevated Box Walks • Elevated Box Shoulder Taps <p>On Ground:</p> <ul style="list-style-type: none"> • Plank and side plank holds • Plank shoulder taps • Bear Hover Alt Shoulder Taps • Lateral Bear Hover <p>If the woman can properly keep her core engaged, she can do a single arm DB or KB carry. If she cannot maintain a tight core without coning during this, she can do a farmer carry or front rack carry.</p>	<p>Some women feel fine going upside down on the wall or on a box. Adjust as needed for each athlete.</p> <p>As the belly grows bigger and balance/ coordination decreases, avoid movements that have a risk of falling.</p> <p>** See note above chart on coning **</p>
<p>[HANDSTAND PUSH-UPS]</p>	<ul style="list-style-type: none"> • Strict Handstand Push-ups • Seated Dumbbell Strict Press • Barbell or Dumbbell Shoulder Press (strict or push press) • Pike Push Ups 	<p>Some women feel fine going upside down on the wall or on a box. Adjust as needed for each athlete.</p> <p>As the belly grows bigger and balance/ coordination decreases, avoid movements that have a risk of falling.</p> <p>** See note above chart on coning **</p>
<p>[PUSH-UPS]</p>	<ul style="list-style-type: none"> • Perform with hands on a raised surface such as paralletes, or a bar in a squat rack 	<p>In the second trimester, as their belly begins to grow, many women will no longer feel comfortable performing regular push-ups.</p>

<p>[RING DIPS]</p>	<ul style="list-style-type: none"> • Modified Ring Dips - Jump to arm extension, eccentric lower • Banded Ring Dips 	<p>As the belly grows bigger and balance/ coordination decreases, banded ring dips should be avoided if there is a risk of falling.</p>
<p>[RING MUSCLE UPS]</p>	<ul style="list-style-type: none"> • Modified Ring Muscle Up - inverted ring row, walk feet up and press through arms • A combination of strict pull-ups and push-ups • A combination of ring rows and modified push-ups 	<p>In the second and third trimesters, rx ring muscle-ups should be avoided.</p>
<p>[WALL BALLS]</p>	<ul style="list-style-type: none"> • Controlled squat and press, either with a barbell or dumbbells • Resistance band Banded Thrusters 	<p>As the belly grows bigger and balance/ coordination decreases, some women may be more comfortable performing these modifications.</p>
<p>[SANDBAG CLEANS]</p>	<ul style="list-style-type: none"> • Barbell or dumbbell power clean • Scale range of motion (take the bar/dumbbells from the hang position) • Elevated Double Dumbbell Hang Snatch 	<p>As the belly grows bigger, most women will find it uncomfortable to perform sandbag cleans. Switching to a bar or dumbbell variation will help. Dumbbells can be single (alternating arm) or double.</p>

<p>[ROPE CLIMBS]</p>	<ul style="list-style-type: none">• Lying rope climb pull to standing• 25' sled pull for 1 rope climb• 3 strict pull-ups fo 1 rope climb• Ring rows (3-4 for 1 rope climb)• Bent-over dumbbell rows• Body rows on a low pull-up bar	<p>Lying rope climb pull to standing 25' sled pull for 1 rope climb 3 strict pull-ups fo 1 rope climb Ring rows (3-4 for 1 rope climb) Bent-over dumbbell rows Body rows on a low pull-up bar As the belly grows bigger and balance/ coordination decreases, women should avoid movements that have a risk of falling.</p>
<p>[CORE WORK]</p>	<ul style="list-style-type: none">• Side planks• Bird Dogs• Sitting knee lifts• Core breathing• Farmers carry holds/ plate holds• Cat cow pose• Side lying leg lifts• Heel slides	<p>Women should do core work throughout their pregnancy. If there are accessory core pieces in class, coaches should encourage women to do these options.</p>