

# **Vücut Geliştirme**

**Sırt Bölgesi**

**Spor Bilimleri Anabilim Dalı**

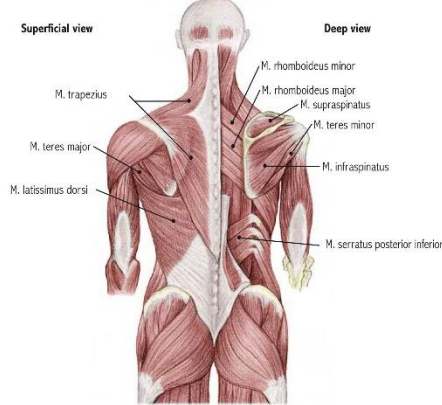
# Sırt Bölgesi

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## Back Group

### SCIENTIFIC DESCRIPTION OF THE BACK: INTRODUCTION TO THE BIOMECHANICS OF THE MAIN MUSCLES

#### MUSCLES WITH INSERTION IN THE HUMERUS



#### LATISSIMUS DORSI / "LATS" (posterior, superficial)

**Origin:** thoracic vertebrae (spinous processes of 7th to 12th vertebrae), thoracolumbar fascia and iliac crest (from the 10th to the 12th rib), and almost always the scapula (lower angle)  
**Insertion:** humerus (lesser tubercle and crest)

**Main functions:** adduction of the arm when raised, inward rotation (though this has been questioned by some experts), also involved in extending the humerus and lowering the pectoral girdle

#### TERES MINOR / LESSER TERES (posterior, deep)

**Origin:** scapula (lateral border)

**Insertion:** humerus (lower facet of the greater tubercle)

**Main functions:** weak outward rotation and a role in the adduction of the arm

**Comments:** The latissimus dorsi is a large, flat powerful muscle that is responsible for, among other functions, movement of the arm toward the body (adduction), both vertically (as in pull-ups) and horizontally (as in rows). Although the muscle can be divided into four sections, its size means that it is, in practice, enough to include pull-down and row-type exercises to involve all of them. The teres major muscle performs a similar function as the latissimus dorsi, to such an extent in fact that it is sometimes fused with it (or may even be entirely absent). These are the middle back muscles involved in climbing.

The infraspinatus is sometimes fused with the teres minor muscle and performs a similar function.

#### TERES MAJOR / GREATER TERES (posterior, superficial)

**Origin:** scapula (posterior aspect of the inferior angle)

**Insertion:** humerus (lesser tubercle)

**Main functions:** retroversion (swinging back), adduction and inward rotation of the arm

#### INFRASPINATUS (posterior, deep)

**Origin:** scapula (infraspinous fossa and vertebral border)

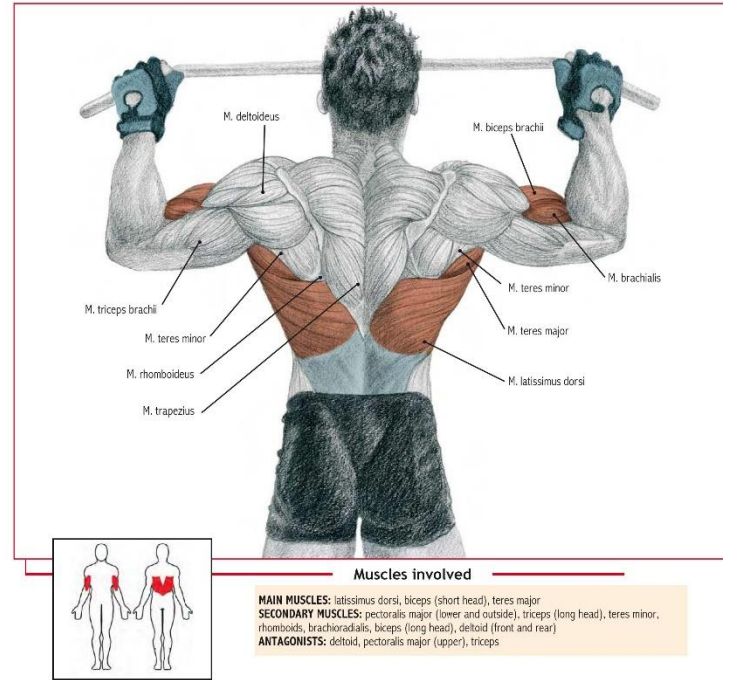
**Insertion:** humerus (middle facet of the greater tubercle)

**Main functions:** outward rotation of the arm and reinforcement of the shoulder joint

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Back,  
Free Weights

## CHINS / CHIN-UP



#### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, biceps (short head), teres major  
**SECONDARY MUSCLES:** pectoralis major (lower and outside), triceps (long head), teres minor, rhomboids, brachioradialis, biceps (long head), deltoid (front and rear)  
**ANTAGONISTS:** deltoid, pectoralis major (upper), triceps

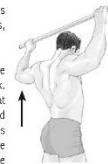
#### VARIATIONS 1.2 ... BEHIND-THE-NECK

##### MUSCLES USED

latissimus dorsi, biceps (short head), brachialis, teres major and minor

##### TECHNIQUE

End the chin-up with the bar behind your neck. Some studies suggest that this works the lower and outside area of the lats somewhat harder, as the upward movement must be completely vertical.



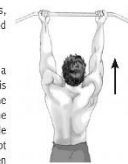
#### VARIATIONS 1.3 ... UNDERHAND GRIP / BICEPS

##### MUSCLES USED

latissimus dorsi, biceps, brachialis, teres major and minor

##### TECHNIQUE

Do the chin-ups with a narrower palms-up grip. This makes more demands on the biceps and may shift some work to the bottom/middle and center of the lats. Do not extend your elbows fully when you come down.



#### VARIATIONS 1.4 ... NEUTRAL GRIP WITH

##### MUSCLES USED

latissimus dorsi, brachialis, biceps, teres major and minor

##### TECHNIQUE

Use a comfortable neutral grip (palms facing each other). Pull up and put your head between the rungs of the ladder, or alternate pulling up to the left and right to concentrate on each side of your body.

# Sırt Bölgesi

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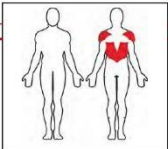
Back,  
Free Weights

## BENT-OVER BARBELL ROW



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, teres major and minor, deltoid (rear)  
**SECONDARY MUSCLES:** rhomboids, biceps, brachialis, brachioradialis, trapezius, infraspinatus, (lower back muscles)  
**ANTAGONISTS:** pectoralis major, triceps, deltoid (front)



### VARIATIONS 2.2 ... WITH DUMBBELLS

**MUSCLES USED**  
latissimus dorsi, teres major and minor, deltoid (rear)

**TECHNIQUE**  
Dumbbells allow a neutral grip (palms facing each other) and a longer range of motion. They also allow you to bring the weight toward the center of gravity (which is safer).



### VARIATIONS 2.3 ... UNDERHAND GRIP

**MUSCLES USED**  
latissimus dorsi, teres major and minor, deltoid (rear), biceps

**TECHNIQUE**  
Using either a barbell or dumbbells, this variant involves the biceps more. The effect on the back muscles varies little because the change is in the forearm and not the humerus.



### VARIATIONS 2.4 ... NARROW GRIP WITH

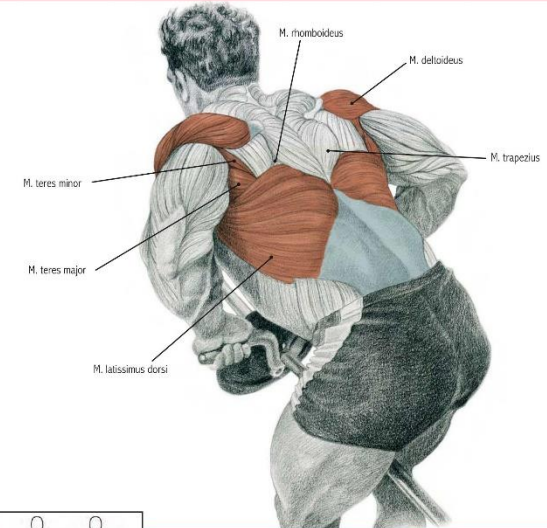
**MUSCLES USED**  
latissimus dorsi, teres major and minor, deltoid (rear), brachialis

**TECHNIQUE**  
This variant is similar to Ex. 4 and Ex. 2.2. Use a neutral grip (palms facing inward) and keep the dumbbells close to your torso throughout the movement. The work done by the lats is to some extent shifted to the middle and lower regions of the back. This exercise can also be done using a barbell with a narrow grip.

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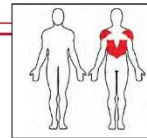
Back,  
Free Weights

## T-BAR ROW



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, teres major and minor, deltoid (rear)  
**SECONDARY MUSCLES:** rhomboids, biceps, brachialis, brachioradialis, trapezius, infraspinatus, (lower back muscles)  
**ANTAGONISTS:** pectoralis major, triceps, deltoid (front)



### VARIATIONS

#### 3.2 ... WIDE GRIP

**MUSCLES USED**  
latissimus dorsi, teres major and minor, deltoid (rear), rhomboids, trapezius

**TECHNIQUE**  
The exercise is virtually the same as the Long Bar Row, but the wider grip shifts some of the work to the upper back. There is a more limited range of motion in this exercise, as is always the case when you widen your grip on the bar in traction exercises of this kind for the back (Pull-ups and Rows).

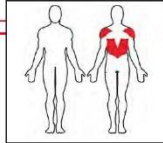
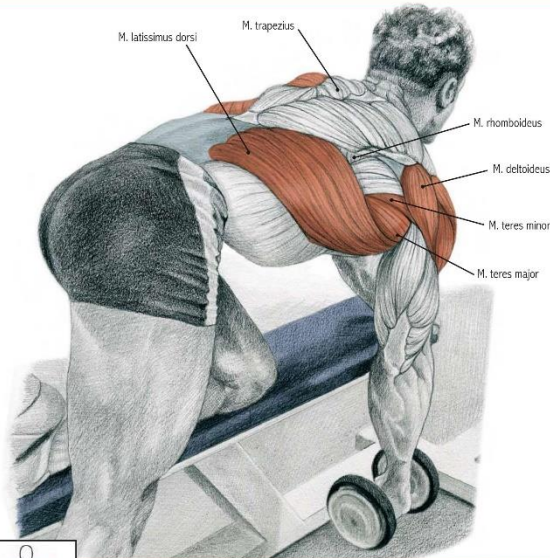


# Sırt Bölgesi

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Back,  
Free Weights

## ONE-ARM DUMBBELL ROW/BENT-OVER DUMB



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, teres major and minor, deltoid (rear)  
**SECONDARY MUSCLES:** rhomboids, biceps, brachialis, brachioradialis, trapezius  
**ANTAGONISTS:** pectoralis major, triceps, deltoid (front)

### VARIATIONS 4.2 ... OPEN

#### MUSCLES USED

latissimus dorsi, teres major and minor, deltoid (rear), rhomboids, trapezius

#### TECHNIQUE

The only difference from the basic exercise is that you keep your elbow further away from your body. This shifts some of the work to the upper back (rear deltoid, trapezius, rhomboids, etc.).



### 4.3 ... STANDING

#### MUSCLES USED

deltoid (rear), trapezius, latissimus dorsi, teres major and minor, triceps (long head)

#### TECHNIQUE

Place your hand on the back of an incline bench. Your point of support is no longer horizontal to the floor but at an angle. Your torso will be at a diagonal angle and you should use a little less weight than in the basic exercise. This position works the trapezius and the rest of the upper back harder. The movement of the dumbbell will still be vertical, however.

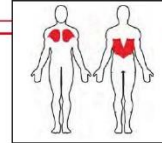
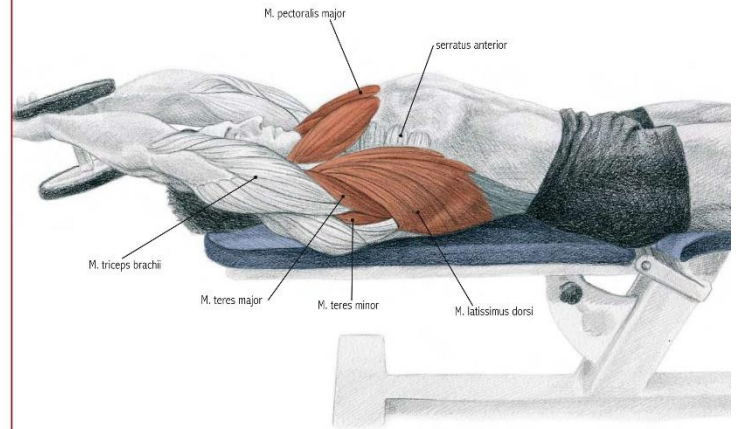


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Back,  
Free Weights

## DUMBBELL PULL-OVER



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, teres major and minor, pectoralis major  
**SECONDARY MUSCLES:** serratus anterior, triceps (especially the long head), rhomboids  
**ANTAGONISTS:** pectoralis major, deltoid (front)

### VARIATIONS

### 5.2 ... ALTERNATING

#### MUSCLES USED

latissimus dorsi, teres major and minor, pectoralis major

#### TECHNIQUE

The technique is the same as in the basic exercise but using two small dumbbells which you alternate. This makes it possible to focus individually on the muscles worked, although it has less effect on the chest and breathing. In general terms, this variant is no better than the basic exercise.



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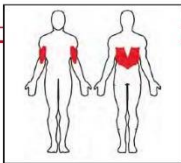
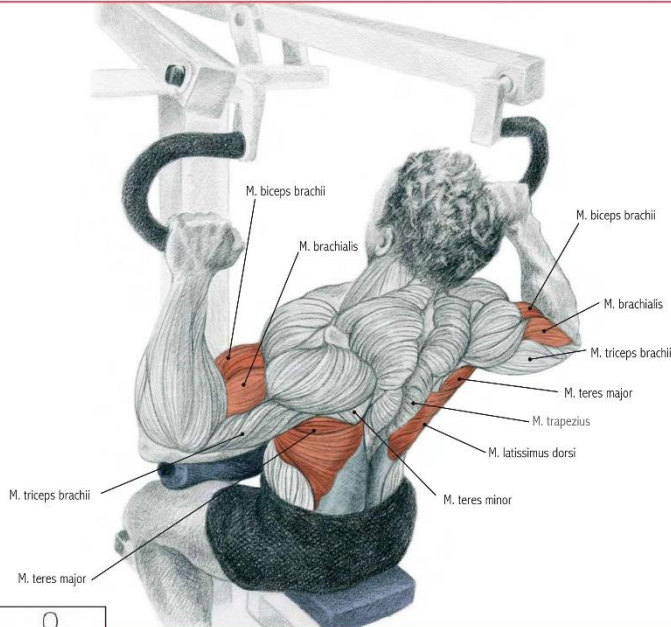


# Sırt Bölgesi

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Back,  
Machines

## MACHINE LAT PULL-DOWN



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, biceps (short head), teres major  
**SECONDARY MUSCLES:** pectoralis major (lower and outside), triceps (long head), teres minor, rhomboids, brachioradialis, biceps (long head), deltoid (front and rear)  
**ANTAGONISTS:** deltoid, pectoralis major (upper), triceps

### VARIATIONS

#### 8.2 ... ONE-ARM LEVER

##### MUSCLES USED

latissimus dorsi, teres major and minor, biceps (short head), brachialis, brachioradialis

##### TECHNIQUE

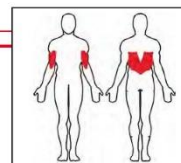
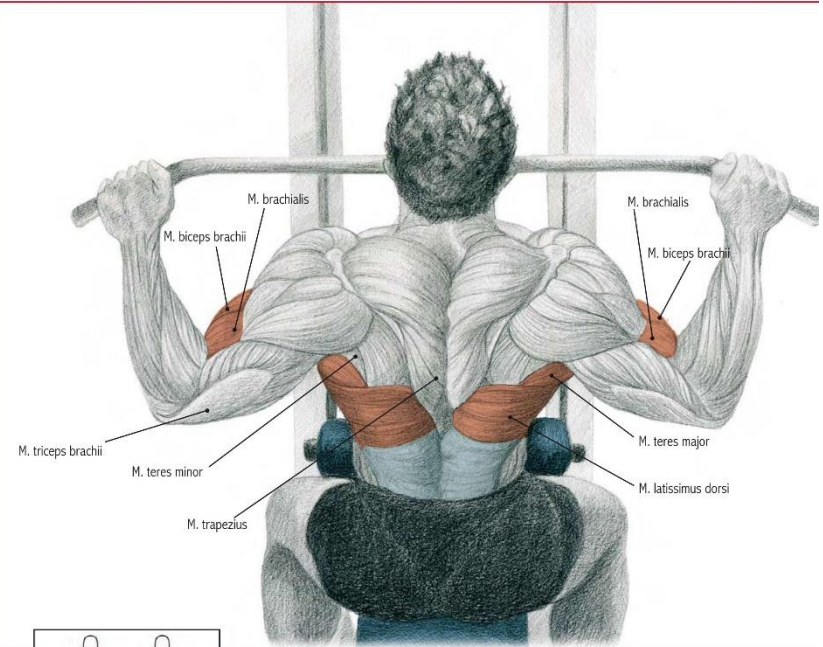
If the machine is equipped with independent levers, you can do the exercise one-handed (also possible with a standard machine, although the position is rather awkward). It is advisable to do while this holding one weight up in place in order to stabilize the spinal column. You can either do an entire set with one arm or alternate. In any event, you will achieve a good, long movement, providing the machine is well designed.



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Back,  
Machines

## CABLE PULL-DOWN



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, biceps (short head), teres major  
**SECONDARY MUSCLES:** pectoralis major (lower and outside), triceps (long head), teres minor, rhomboids, brachioradialis, biceps (long head), deltoid (front and rear)  
**ANTAGONISTS:** deltoid, pectoralis major (upper), triceps

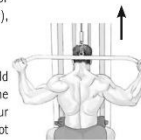
### VARIATIONS 9.2 ... BEHIND-THE-NECK

##### MUSCLES USED

latissimus dorsi, teres major and minor, biceps (short head), brachialis, brachioradialis

##### TECHNIQUE

Keep your torso vertical and hold your head forward to bring the bar down to the nape of your neck without touching it. It is not as easy to cheat in this exercise, even though you cannot see the bar come down, but the muscle workout is virtually the same.



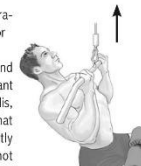
### VARIATIONS 9.3 ... UNDERHAND GRIP

##### MUSCLES USED

latissimus dorsi, biceps, brachialis, teres major and minor

##### TECHNIQUE

Use a narrower underhand grip (palms up). This variant involves the biceps, brachialis, and other muscles somewhat more. It also significantly stretches the lats. Do not extend your arm completely as the bar goes up.



### VARIATIONS 9.4 ... NARROW GRIP

##### MUSCLES USED

latissimus dorsi, brachialis, brachioradialis, teres major and minor, pectoralis major (lower)

##### TECHNIQUE

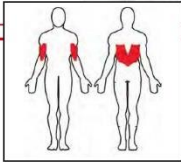
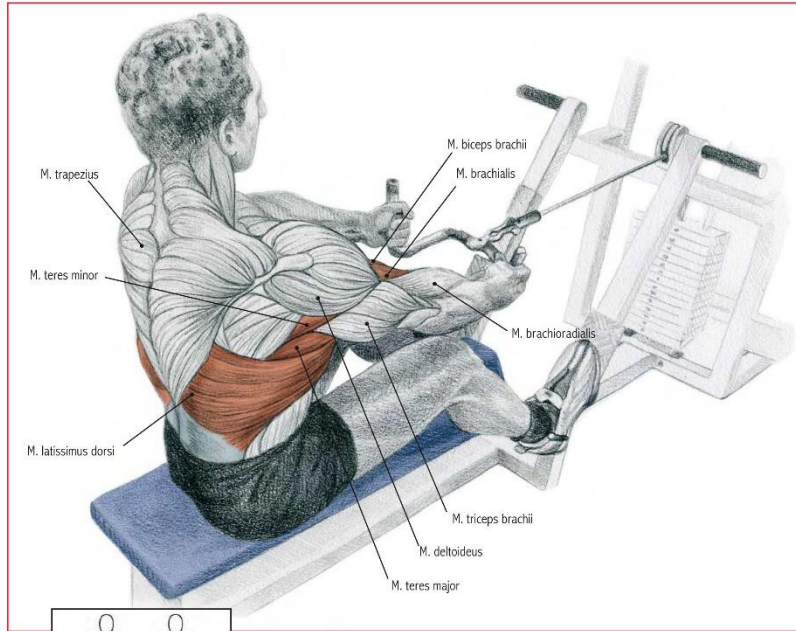
Use a narrow, overhand grip, or a bar with a closed, neutral grip. This variant works the entire back and provides a good range of motion. It also requires considerable work from the arms and the lower area of the pectoral muscle.

# Sırt Bölgesi

10

Back,  
Machines

## SEATED CABLE ROW



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, brachialis, biceps, teres major and minor  
**SECONDARY MUSCLES:** rhomboids, triceps (long head), brachioradialis, trapezius (middle and lower), deltoid (rear), lower back muscles  
**ANTAGONISTS:** deltoid (front), pectoralis major, triceps

### VARIATIONS 10.2 ... OVERHAND GRIP

#### MUSCLES USED

latissimus dorsi, teres major and minor, deltoid (rear), trapezius, rhomboids, biceps, brachialis

#### TECHNIQUE

This variant is identical, but you use a bar held in an overhand grip with the elbows separated from the torso at all times (forearms parallel to the floor). This shifts work to the upper part of the back.



### VARIATIONS 10.3 ... WITH HIGH CABLE

#### MUSCLES USED

latissimus dorsi, biceps, brachialis, teres major and minor

#### TECHNIQUE

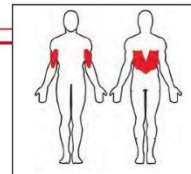
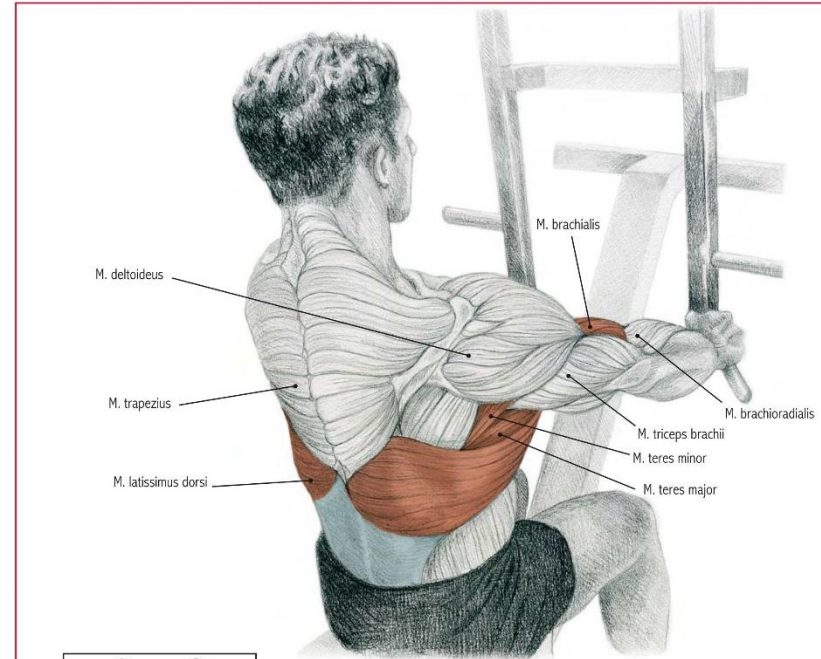
Pull from a high cable using less weight. This variant is halfway between a Row and a Pull-down. If you increase the load, you will need to place your feet higher to prevent your body from being lifted up by the weight. Also, you will need to avoid leaning your body back, which turns the exercise into a conventional Row.



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Back,  
Machines

## MACHINE SEATED ROW



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, brachialis, biceps, teres major and minor  
**SECONDARY MUSCLES:** rhomboids, triceps (long head), brachioradialis, trapezius (lower), deltoid (rear)  
**ANTAGONISTS:** deltoid (front), pectoralis major, triceps

### VARIATIONS

### 11.2 ... WIDE GRIP

#### MUSCLES USED

latissimus dorsi, teres major and minor, deltoid (rear), trapezius, rhomboids, biceps, brachialis

#### TECHNIQUE

This variant is identical to the basic exercise but uses a wide overhand grip with the elbows separated from the torso at all times (forearms moving parallel to the floor). The work is shifted to the upper back, using the deltoid (rear) and rhomboids more, in addition to the latissimus dorsi and adjacent muscles.

A few machines allow an underhand grip (see Underhand-grip Barbell Row, Ex. 2.3).



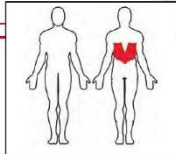
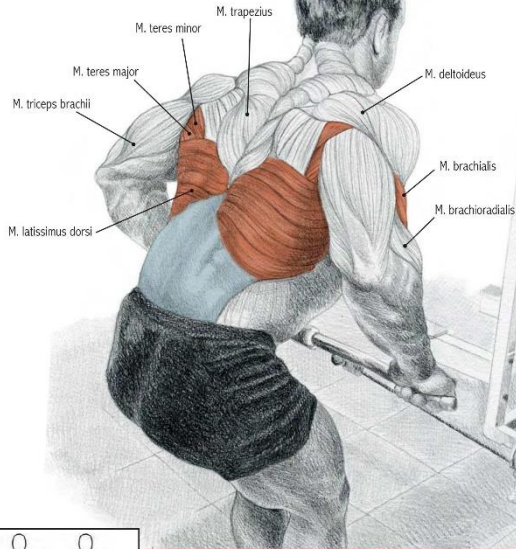


# Sırt Bölgesi

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Back,  
Machines

## STANDING LOW CABLE ROW



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, brachialis, teres major and minor  
**SECONDARY MUSCLES:** biceps, lower back (lumbar and paravertebral) muscles, rhomboids, triceps (long head), brachioradialis, trapezius, deltoid (rear)  
**ANTAGONISTS:** deltoid (front), pectoralis major, triceps

### VARIATIONS

#### 12.2 ... WITH HIGH CABLE

**MUSCLES USED**  
 latissimus dorsi, teres major and minor, deltoid (rear), trapezius, rhomboids, biceps, brachialis

#### TECHNIQUE

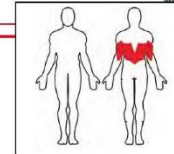
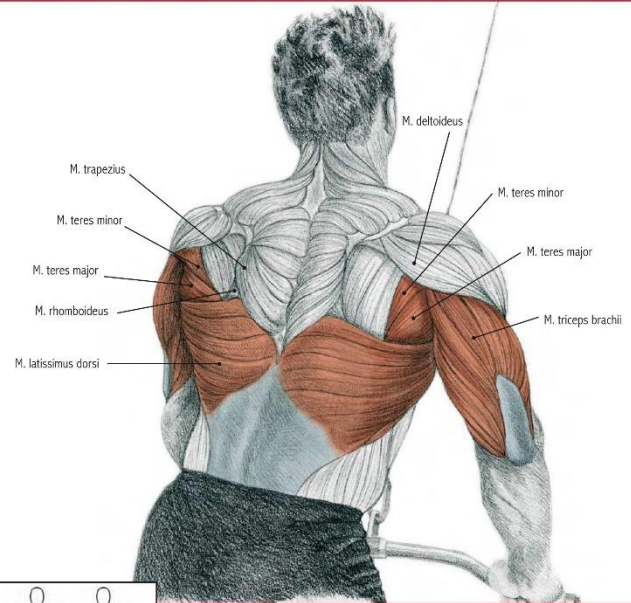
If you are pulling down from a high cable, keep your body straighter in a position that is halfway between the basic exercise described above and the Cable Pull-down (Ex. 9). This shifts the strain from the lower back, but you will in any case have to use a light load (because of the balance problem). This is a good exercise to combine with Cable Pull-overs (Ex. 13) for a superset taken to the point of muscle failure.



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Back,  
Machines

## STANDING CABLE PULL-OVER



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, teres major and minor, triceps  
**SECONDARY MUSCLES:** deltoid (rear), rhomboids, pectoralis major (lower), trapezius, serratus anterior  
**ANTAGONISTS:** deltoid (front), coracobrachialis, pectoralis major (upper)

### VARIATIONS

#### 13.2 ... WITH ROPE

#### MUSCLES USED

latissimus dorsi, teres major and minor, triceps

#### TECHNIQUE

This variant is not much different from the basic exercise, except that your grip will now be neutral (palms facing each other) or only slightly overhand. As there is no bar to strike your body, using a rope grip makes it possible to get a stronger final contraction, placing more emphasis on the rear deltoid, the latissimus dorsi and the teres muscles.

The rope will also allow you to do the Pull-over one-handed, although there is no particular advantage to this and it makes the exercise more difficult to perform correctly.

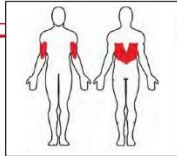
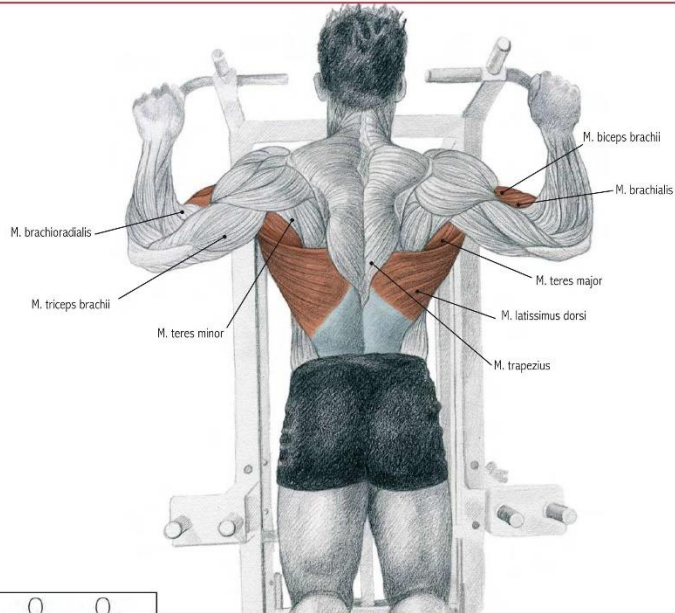


# Sırt Bölgesi

14

Back,  
Machines

## MACHINE CHIN-UP/ASSISTED PULL-UP



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, biceps (short head), teres major  
**SECONDARY MUSCLES:** pectoralis major (lower and outside), triceps (long head), teres minor, rhomboids, brachioradialis, biceps (long head), deltoid (front and rear)  
**ANTAGONISTS:** deltoid, pectoralis major (upper), triceps

### VARIATIONS

#### 14.2 ... NEUTRAL GRIP

##### MUSCLES USED

latissimus dorsi, biceps, brachialis, teres major and minor

##### TECHNIQUE

If the machine is designed to allow a neutral grip (palms facing), this can be used to vary the exercise. Essentially, it will be the same as the Neutral-grip / T-bar Cable Pull-down (Ex. 9.6).

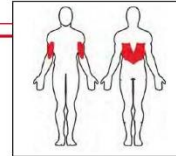
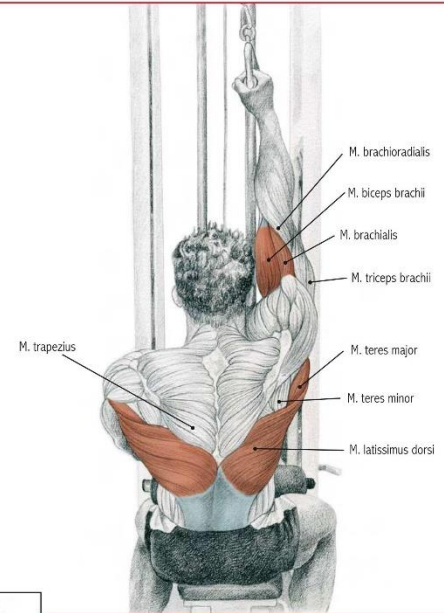
An underhand or inverted grip is also possible in some chin-up machines, though this is more unusual as the bar is normally split in two at the center, where you would need to hold on. If an underhand grip is possible on the machine at your gym, review the free-weight exercise (Ex. 1.3).



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Back,  
Machines

## ONE-ARM MACHINE LAT PULL-DOWN



### Muscles involved

**MAIN MUSCLES:** latissimus dorsi, biceps (short head), teres major  
**SECONDARY MUSCLES:** pectoralis major (lower and outside), triceps (long head), teres minor, rhomboids, brachioradialis, biceps (long head), deltoid (front and rear)  
**ANTAGONISTS:** deltoid, pectoralis major (upper), triceps

### VARIATIONS

#### 15.2 ... SEATED ON THE FLOOR

##### MUSCLES USED

latissimus dorsi, biceps, brachialis, teres major and minor

##### TECHNIQUE

By sitting or kneeling on the floor, you can achieve a longer movement than in the basic exercise. However, the position will encourage you to lean back slightly, which will turn the exercise into something halfway between a Front Cable Pull-down and Low Cable Row.

