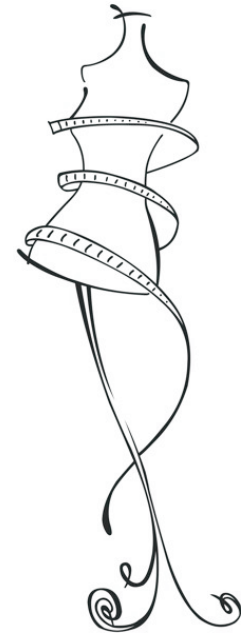


Basic Alterations and Repairs

HAVE YOU EVER ordered clothing online and received a garment that did not fit? Is everyone who orders a size “medium” the same size? Fit is the correct size or shape for a garment becoming to the wearer. Good fit usually requires adjustment—especially to a ready-made garment’s or a standard size pattern’s proportions. Tips for good fit are the focus of this lesson.



Objective:



Perform basic alterations and repairs.

Key Terms:



alteration
alteration lines
body measurements
circumference
ease

fit
fold line
grain
measure
measuring tape

pattern
redesign
repair

Understanding Basic Alterations and Repairs

Basic alterations and repairs require some understanding of processes.

ALTERATIONS

Alteration is the process of changing or revising a pattern or garment to suit individual sizes and desires. Alterations are performed to provide the desired fit for each person’s body. Alteration professionals must understand and perform draping, layout, cutting, sewing, alteration, and repair tasks without ruining the fabric. Tailors, seamsters, and seamstresses perform alterations in the following categories:

◆ Bridal

- ◆ Couture or custom
- ◆ Costume
- ◆ Leather and suede
- ◆ Museum restoration

FIT

Fit is the correct size or shape of a garment that is becoming to the wearer; it requires an adjustment to the garment's proportions. Fitting a pattern is important to the success of clothing construction projects or client alterations. Commercially produced patterns are designed to fit the average, standard-size figure. However, few people are exactly "standard size." Taking accurate measurements is the first step to good fit.

A good fit makes a measurable difference in how a person looks and feels. A good fit flatters a person's body shape. For example, tag sizes are only an indicator of fit. Purchasing a jacket that fits in the shoulders but is too large at the waist is an excellent example of an appropriate alteration. The jacket can be altered in the waist to create a perfect fit. Size is relative to individual proportions. A good fit transmits a message to others about the wearer. For example:

- ◆ Clothes that fit too tightly may convey "cheapness" or may highlight body areas that a person does not wish to highlight. Depending on the situation, too tight clothing can be deemed unprofessional.
- ◆ Clothes that fit too loosely may convey sloppiness or being too casual. Depending on the situation, too loose clothing can be deemed unprofessional.
- ◆ Oversized clothing, on a petite figure, can be overwhelming to the body, can make a person look childlike, or can visually "add weight" to the wearer.



FIGURE 1. Most bridal dresses, regardless of the size ordered, will require alterations to fit each bride.



FIGURE 2. Fit is the correct size or shape of a garment that is becoming to the wearer; it requires an adjustment to the garment's proportions. Good fit is flattering to the wearer and makes a measurable difference in how you look and feel.

Measurements

To **measure** is to find out the size of someone for use in sewing, alteration, and repair.

Body measurements are the dimensions (numbers) that indicate the size and the proportions of the human body. Knowing the body's three-dimensional angles allows for an accurate fit whether constructing or altering clothing, purchasing ready-to-wear items, or shopping online.

Taking measurements, although relatively easy, requires accuracy. The tools are minimal: a measuring tape, paper, pencil,

and a full-length mirror. A **measuring tape** is a long, flexible strip or ribbon marked on both sides with subdivisions of the foot on one side and meters on the other. It is usually 60 inches long (152 cm), with a metal cover on each end. The ultimate goal of taking accurate body measurements is to achieve a great fit and perfectly tailored clothing.

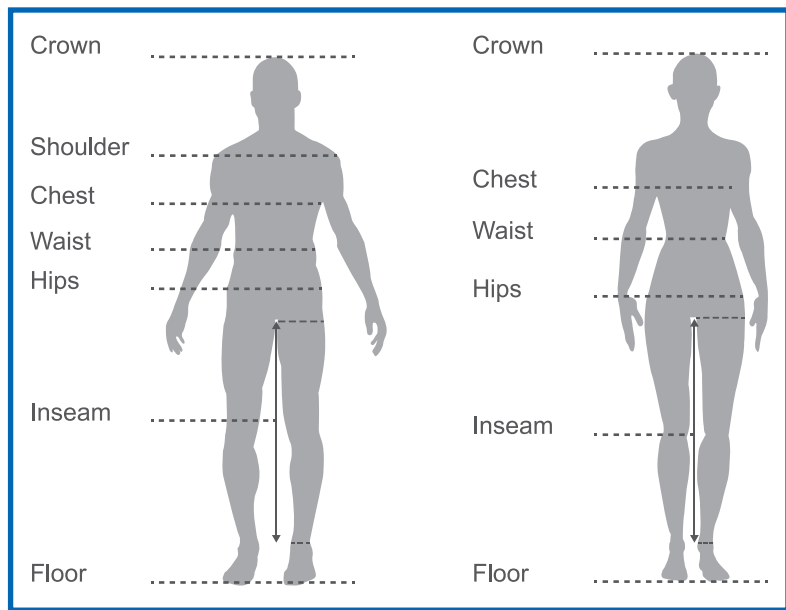


FIGURE 3. Use a measurement chart, such as the one illustrated here, to capture body measurements for you or for a client.

Circumference

It is easiest to have someone else take your measurements. Yet you can take personal measurements. However, it requires a bit more attention to detail, and a full-length mirror is mandatory. Body measurements are often taken around the circumference of a body part or area.

Circumference is the distance around the outer edge of a circle or curved shape; it is a perimeter measurement.

Minimizing Bulk

Measurements taken with a person wearing undergarments only are more accurate than those taken “over” clothing. (NOTE: An alternative is wearing undergarments, a tank top, and leggings. The goal is to reduce any bulky fabric getting between the body and the tape measure.)

Posture

When being measured, stand up straight. Your shoulders should be back to open your chest, and do not hold in your stomach. Accurate measurements are necessary for a good fit.

Tape Measure

Hold the tape measure parallel to the floor for the most accurate reading. Also, use the same tape measure for all measurements. Typically, to create the correct amount of ease, the mea-

surer places two fingers between the tape measure and the body and records that measurement. **Ease** is the difference between the body measurement and the finished garment at the same body part or area. For example, if a person places a favorite T-shirt on a flat surface and measures the chest area and takes that measurement times two, he or she gets the chest measurement of the T-shirt. Usually, the T-shirt chest measurement will be larger than the body measurement.

Measurements are taken by lightly pulling the measuring tape to create a snug fit. How snug is snug? The tape measure should be a close fit, not tight. It should not “dig in” to the body’s soft tissue. The measurer should be able to place at least one finger between the tape measure and the body. Measure at the widest part of each body area for the most accurate reading. The exception is the waist: The waist measurement is taken at the narrowest point.

Basic How to Measurements for Men

- ◆ Neck: Measure the circumference of the neck at the base with the tape resting at the shoulders.
- ◆ Sleeve length: Measure the sleeve length from the joint of the shoulder following a bent arm to the wrist bone. Measure from a bent arm position by placing the arm on the hip. This position ensures accuracy and comfortable movement of the sleeve.
- ◆ Chest: Measure the circumference of the chest from under the armpits while the arms are raised. The measurement is taken



FIGURE 4. Measure the circumference of the neck at the base with the tape resting at the shoulders. Measure the sleeve length from the joint of the shoulder following a bent arm to the wrist bone.

- around the circumference of the chest at the widest point. Ensure that the person being measured is standing in a relaxed pose and that he or she breathes out.
- ◆ Shoulder: Measure the shoulder width from end to end just above the armpits.
- ◆ Waist: Measure the circumference of the waist at the natural bend of the body. The person being measured must bend from side to side, and the measurer must mark the area with a piece of elastic or ribbon. This “mark” provides a reference point for measuring from the waist to the knee or floor. The natural waist is usually right above the belly button.
- ◆ Hips: Measure the circumference hips at the widest point (usually around the seat) while the person being measured is standing with legs a few inches apart.
- ◆ Inseam: Measure the inseam from the crotch down to the desired pant length.

Basic How to Measurements for Women

- ◆ **Bust/chest:** Measure the circumference of the bust/chest under the armpits and around the fullest part while keeping the tape parallel to the floor. This measurement is roughly around your shoulder blades.
- ◆ **Sleeve length:** Measure the sleeve length from the joint of the shoulder following a bent arm to the wrist bone. Measure from a bent arm position by placing the arm on the hip. This position ensures accuracy and comfortable movement of the sleeve.
- ◆ **Waist:** Measure the circumference of the waist at the natural bend of the body or where the waist is smallest: about 1 inch above the navel. The person being measured must bend from side to side, and the measurer marks the area with a piece of elastic or ribbon. This “mark” provides a reference point for measuring from the waist to the knee or to the floor. Measurement is most accurate when you are relaxed and not “holding in” your stomach.



FIGURE 5. Measure the circumference of the waist at the natural bend of the body or where the waist is smallest: about 1 inch above the navel.

- ◆ **Hips:** Measure the circumference of the hips at the fullest part. Again, the measurer must ensure that the tape measure is parallel to the floor for the accuracy of this measurement.
- ◆ **Center back to waist:** Measure the center back to waist from the prominent bone at the base of the neck to the waistline.
- ◆ **Inseam:** Measure the inseam from the crotch down to the desired pant length or to the end of the ankle.

ALTER PATTERN PIECES

A **pattern** is the template from which the parts of a garment are traced onto fabric before being cut and assembled. Alteration requires changing or revising a pattern or garment to suit individual size or desires. In this case, it is about adjusting the size or design of a pattern piece or pieces.

Patterns can be altered or adjusted in three main ways:

- ◆ Fold out excess fullness to decrease the dimensions.
- ◆ Slash and spread an area of the pattern to increase the dimensions. (You can also slash and overlap to decrease the dimensions.)

- ◆ Redraw darts or seamlines.

Pattern alterations are most accurate when you select a pattern size closest to the desired size and use a few basic tools, including:

- ◆ Measuring tape
- ◆ Marking pen or marker
- ◆ Transparent tape
- ◆ Freezer paper or tissue paper
- ◆ Your measurements or a client's measurements



FIGURE 6. Patterns can be altered or adjusted in three main ways: Fold out excess fullness; slash and spread or slash and overlap; and redraw darts or seamlines.

Basic Alterations: Guidelines

Keep all grain lines, the center front, and back fold lines straight. **Grain** is the direction of the fabric that runs parallel to the selvage. The grain lines on a commercial pattern have an arrow on either end <-----> indicating the direction of the grain to assist in laying out the pattern pieces correctly.

Center front lines and back fold lines are on the pattern piece to indicate the center of the piece for placement on the fabric. A **fold line** is the actual fold of the fabric off a bolt or a self-constructed fold of the fabric. Placing a pattern piece “on the fold” eliminates the need for a center front or a center back seam.

- ◆ Make adjustments with discretion.
- ◆ Maintain the wearing ease built into the pattern styling.
- ◆ Use the adjustment lines provided for ease of alteration.
- ◆ When altering one pattern piece, you must also make the corresponding changes on all the related pieces.



FURTHER EXPLORATION...

ONLINE CONNECTIONS: How to Cut an Oversize T-Shirt to Fit

Do you have a T-shirt that you would like to redesign? How about one that is oversized and a bit sloppy looking? A simple technique is at <https://www.youtube.com/watch?v=SYp7ZBsoPtQ>. You will need to gather a few items before redesigning: a T-shirt that fits the way you like, an oversized T-shirt, scissors, tailor's chalk, and a sewing machine. Make a new shirt.

Pattern Alterations

Alteration lines are double lines shown on certain pattern pieces indicating where the pattern should be adjusted before cutting. Pattern pieces are altered by increasing or decreasing width, adding or redirecting darts, lengthening or shortening (e.g., bodice, sleeve, leg or skirt), and/or refitting or relocating a cuff or collar, etc.

Most pattern pieces have adjustments to show where to lengthen or shorten a specific pattern piece. Once measurements are taken, you use these alteration line locations to position the necessary adjustments. For example, to lengthen the bodice and/or the sleeves by 1 inch:

- ◆ Cut the pattern tissue along the adjustment line.
- ◆ Place the two pieces of pattern tissue on top of the freezer or tissue paper (used to secure the alteration measurement).
- ◆ Increase the length by 1 inch by spreading the pattern tissue apart by 1 inch to lengthen.
- ◆ Secure the pattern tissue to the freezer or tissue paper with transparent tape.

To make adjustments to the circumference of a pattern, make equal adjustments on the front and back pieces. Alteration options exist to decrease or increase the waist, alter for sway back, and alter for a protruding or flat derriere.

- ◆ Decrease the seam allowances (perhaps top to bottom, depending on the styling) or the width of the darts marked on the shirt front and/or back pieces.
- ◆ Decrease the size of the waistband or, if the pattern has a shaped waistband, decrease the side seams (perhaps top to bottom, depending on the styling).
- ◆ Slash the pattern down the center front and center back lines and lap to the desired waist measurement. (In this case, you would need to redraft the skirt facings to match the decrease in waist circumference on the front and back pieces.)

To make adjustments to the circumference of a pattern, make equal adjustments on the front and back pieces. For example, options to adjust the hip circumference of a skirt include:

- ◆ Full hips: Mark the true hipline at the side seam of the back and front pattern pieces. Increase the width by one-fourth the amount needed at each side seam, next to the mark. Blend stitching and cutting lines from hip to waist with a curved ruler.

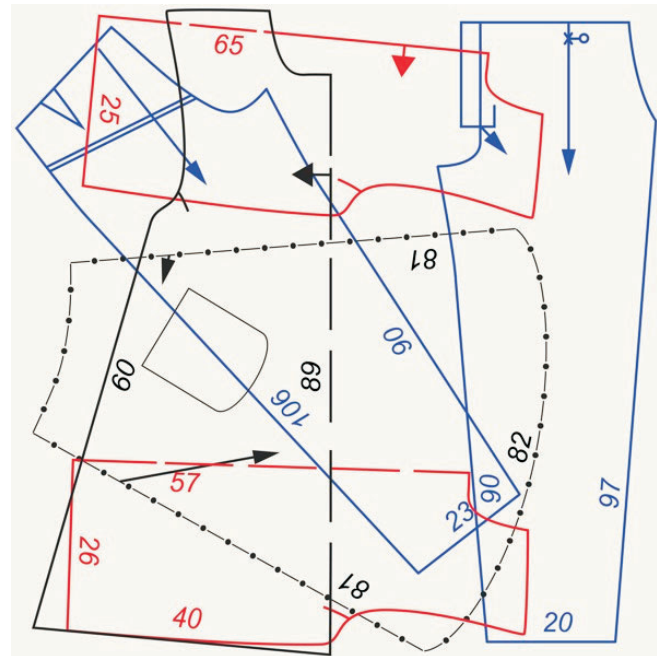


FIGURE 7. Can you spot the alteration lines on one of these pattern pieces? Alteration lines are double lines shown on certain pattern pieces indicating where the pattern should be adjusted before cutting.

- ◆ Small hips: Mark the true hipline at the side seam on the back and front pattern pieces. Reduce the width by one-fourth the amount needed at each side seam, next to the mark. Blend stitching and cutting lines from hip to waist with a curved ruler.

Adjust the skirt or pant length several inches above the hemline to preserve the skirt or pant leg shape.

Adjusting a pattern for a full, small, high, or low bust requires you to redraw lines on the pattern piece to indicate where the dart needs to be placed on the body.

- ◆ High bust: Slash below the dart and up to the armhole (armhole level). Then fold out the desired amount above the dart. Next, lengthen any waistline dart as needed. Finally, redraw the seamline below the dart.
- ◆ Low bust: Slash above the dart and down to the waist. Then fold out the desired amount below the dart. Shorten the waistline dart as needed. Redraw the seamline above the dart.

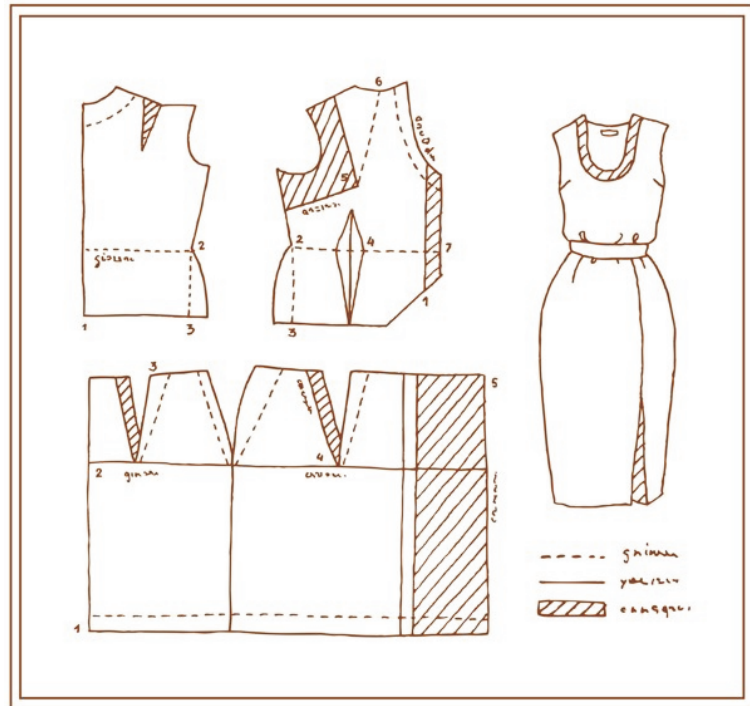


FIGURE 8. These tailor's pattern darts include bust darts, bodice/waistline darts, and shoulder darts. Darts are one way that you can create shape and great fit in your garments.

Other common alterations are for hollow chest; small or large or gaping neckline; sloping, round, square, or broad shoulders; narrow or broad back; narrow sleeve cap; large upper arm; large or small arm; protruding abdomen; large thighs; and flat side hips.

REDESIGN AND REPAIR GARMENTS

You may be able to make adjustments to certain attire to create a new look. In addition, you may just decide to repair garments rather than discarding them or donating them.

Redesign

Redesign is making a revision in the appearance and/or function of a garment. Redesigning a garment is a simple way to update and/or repurpose clothing, shoes, a handbag, a hat, or another accessory. Yet redesigns for petite women and short men must be carefully planned to retain the original styling and shape of the garment.

Removing shoulder pads or shortening the waist or bodice requires a thoughtful redesign to maintain design details. It takes planning to maintain an A-line shape, a full skirt's "fullness," a tapered sleeve finish, full bellbottom pant legs, and true button placements.

BLOUSES, SHIRTS, AND JACKETS

Cuffs

Update cuffs by removing and hemming the sleeve at a different length or with embellishments (trims, buttons, and/or fringe). Frayed cuffs could be bound with lace trim, seam binding, or bias-cut fabric remnants.

Sleeves

Removing part or the entire sleeve has numerous possibilities. Removing the sleeves entirely and re-cutting, re-facing, or binding the armholes would create an updated sleeveless style. Removing part of the sleeve to create a $\frac{3}{4}$, elbow-length, or short sleeve would change the garment's appearance and may change the use (e.g., short sleeves for wear in warmer months).

Embellishment

Adding buttons, zippers, beads, appliqués, embroidery, or a variety of trims (lace, fringe, seam binding, bias-cut fabric, contrasting fabric, etc.) changes the look and potential uses for the garment.

Pockets

Adding, removing, camouflaging frays, or embellishing pockets is a change to a style detail and functional portion of shirts. For example, changing the look of a patch pocket to that of western-wear styling edits the look and creates a new visual focus.

Body

Alterations to the body of a shirt or jacket must be carefully planned. Shirts and blouses can be adjusted to accommodate a petite size woman or a short man. However, jacket bodies and lengths are typically not attempted unless the jacket is an unconstructed type.

DRESSES AND SKIRTS

Length

Shortening or lengthening the skirt of a dress can create a new style. For example, shortening the dress can make an out-of-style fashion item fresh. Lengthening the dress—flounces, trims, contrasting fabric blocking—can dress up or dress down the garment.

Embellishment

Adding buttons, zippers, beads, appliqués, embroidery, or a variety of trims (lace, fringe, seam binding, bias-cut fabric, contrasting fabric, etc.) changes the look and potential use for the garment. On a dress, there are numerous options to embellish: collar, cuffs, button placket, belt, pockets, seaming details, and over-skirt. In addition, “all over” appliqués can profoundly change the look and use for an older dress.

Buttons

A simple change to the dress buttons can change the appearance and appeal of a dress. For example, changing the buttons from a simple clear or shell button to a variety of button types and/or more colorful buttons is an easy and impactful change.

SLACKS AND PANTS

Length

Women’s slacks may be shortened to capris or walking short length; this is easiest when the original leg is stovepipe or straight. Skinny jeans and slacks may need additional fabric added at the side seam or in each leg’s front and back to create an appropriate look. Men’s pants may be shortened to walking short length, again with appropriate consideration to the leg width, drape, and shape. Also, all slacks and pants may have cuffs removed or added to adjust length.

Embellishment

Adding buttons, zippers, beads, appliqués, embroidery, or a variety of trims (lace, fringe, seam binding, bias-cut fabric, contrasting fabric, etc.) changes the look and potential uses for the garment. Creating bell-bottom pants from skinny jeans; adding contrasting fabrics and side seam detail to edit the look; and tie-dying, staining, acid-washing, or distressing jeans and khakis are a few examples.

Pockets

Adding, removing, camouflaging frays, or embellishing pockets is a profound change to a functional portion of the pant or slack. Pockets are a stress point on pants and slacks; often side

seam pocket corners become frayed and/or worn due to repeated use. Replacement of side seam pockets is a common alteration, yet the worn aspect of the stress point may still require some innovative solutions. For example, Levi's added a rivet to that stress point on jeans years ago; it is a functional alteration that has become a characteristic symbol of Levi's jeans.

Repair

Repair is restoring a garment or a feature of the garment to its original state. To repair a garment can be as simple as fixing a rip in the fabric, re-stitching a seam or hem, or replacing a zipper. You need to match the thread color, lay the garment flat, or use a mannequin so the garment lies flat or drapes as intended during the repair.

Deciding on a plan to fix the garment may take longer than the actual repair itself. For example, it is important to fix a rip in the least noticeable fashion. Repairs can be done by hand or on a machine. The Web site <http://www.RealSimple.com> listed the following average prices for common alterations and repairs by a tailor, a seamster, or a seamstress:

To shorten sleeves: \$19

To hem pants: \$7 to \$10

To shorten jacket sleeves: \$23

Summary:



Alteration is changing or revising a pattern or garment to suit individual sizes or desires. It is adjusting the size or design of a pattern piece or a garment. Alterations are performed to provide the desired fit for each person's body. Fit is the correct size or shape of a garment that is becoming to the wearer; it requires an adjustment to the garment's proportions. Commercially produced patterns are designed to fit the average, standard-size figure. However, few people are exactly "standard size." Taking accurate measurements is the first step to good fit.

Redesign is making a revision in the appearance and/or function of a garment. Redesigning a garment is a simple way to update and/or repurpose a piece of clothing, a pair of shoes, or a handbag, hat, or other accessory. Repair is restoring a garment or a feature of the garment to its original state. Repairs can be done by hand or on a machine.

Checking Your Knowledge:



1. What are the basic guidelines for altering any garment?
2. Describe the correct way to take a neck measurement.
3. How are pattern pieces altered?

4. What is redesign?
5. Why is it important to make accurate measurements?

Expanding Your Knowledge:



Many ways exist to redesign a garment. Choose an old pair of jeans that you no longer wear. Use the Internet to find different ways to redesign the jeans. Make a list of items you will need. Write down the redesign steps. Take a before and after picture of your project to share with the class.

Web Links:



How to Take Body Measurements

<http://www.clothingpatterns101.com/body-measurements.html>

Men's Body Measurements

<https://www.tailorstore.com/mens-body-measurements.pdf>

The Seam Method of Pattern Alteration

<http://www.threadsmagazine.com/item/5053/the-seam-method-of-pattern-alteration>