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Pattern Selection and Alteration

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Pattern Selection

and Alteration

COOPERATIVE EXTENSION SERVICE
SOUTH DAKOTA STATE UNIVERSITY
U. S. DEPARTMENT OF AGRICULTURE
### Table 1. Measuring for Patterns

<table>
<thead>
<tr>
<th>Measurements Needed for Pattern Size</th>
<th>My Measurements</th>
<th>2 Plus Minimum Base</th>
<th>3 Equals Total Measurements Needed</th>
<th>4 Pattern Measurements</th>
<th>5 Adjustment Needed + or — inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust—over fullest part (snug not tight)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waist—comfortably at natural waistline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hip*—over fullest part; varies but approximately 7-9” below cord at waistline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Back waist length—from prominent bone at back neck base to cord at waist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Measurements Helpful for Checking and Adjusting Pattern</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of front waist from neck end of shoulder to tip of bust</td>
<td>none</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to cord at waistline</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of sleeve from high point of shoulder to bent elbow</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to wrist</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As a further check begin measurement at prominent bone at back neck to shoulder</td>
<td>none</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to bent elbow</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to wrist</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girth of arm in line with armpit</td>
<td>$2\frac{1}{2}$-3”</td>
<td>$2\frac{1}{2}$-3”</td>
<td>$2\frac{1}{2}$-3”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skirt length from waistline cord to desired hemline</td>
<td>none</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to floor—center front</td>
<td>none</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>right side</td>
<td>none</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>center back</td>
<td>none</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>left side</td>
<td>none</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crotch length for average figure; seat person on table or straight chair. Measure from cord at waist to table top or chair seat at side seam. (see figure 3).</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td>$\frac{3}{4}$</td>
<td></td>
<td>(See section on fitting pants)</td>
</tr>
<tr>
<td>for rounded figure; (standing) from center front waistline, through crotch, to center back waistline.</td>
<td>$3”$</td>
<td>$3”$</td>
<td>$3”$</td>
<td></td>
<td>(See section on fitting pants)</td>
</tr>
</tbody>
</table>

*If considering a straight skirt, take extra measurement 10-12 inches below waistline. Allow 3-3½ inches ease.
Pattern Selection and Alteration

A pattern is a blueprint—a precise measuring device. Following this blueprint carefully doesn’t always insure the success of a garment, unless you first select the right pattern.

The first half of this circular tells what you need to think about and do before making that selection. The second half is about altering patterns. You’ll note that this publication is written primarily to help you sew for yourself. However, you may want to apply the information to sewing for other members of the family and friends.

HOW DO YOU WANT TO LOOK?

First look at yourself as others see you, then decide how you want to look. You may want to look taller, shorter, or just as you are. You may wish to change your apparent body proportions (slimmer in one spot and fuller in another). To do this, you need to understand optical illusion—how you can use line, design, and color to fool the eye.

For example, look at this series of identical rectangles.

Divide one with a horizontal line and the other with a vertical line. Do they look the same size?

Draw two vertical lines down each of these rectangles—close together on one and far apart on the other. Has their apparent shape changed?

Experiment with diagonal lines, wide and narrow stripes—see how lines and spaces can play tricks with your eyes.

Your eyes react to what you see—here are some principles of optical illusion:
1. Certain lines and spaces cause your eyes to move up and down, creating an illusion of height.
2. Other lines cause eyes to move from side to side, creating an illusion of width.
3. Lines can create spaces which give illusions.
4. Eyes like to move horizontally (the direction of reading). With the slightest interruption, eyes leave their vertical path in favor of a horizontal one.

What does all this mean in selecting a becoming pattern? It means to make becoming clothing you need to carefully select and use line in dress design.

Skillfully used line can shorten, lengthen, slenderize and broaden as well as change apparent proportions within the figure.

For example, if you want to look taller, you must keep the eye moving upward without interruption. If the eye stops or detours along the way, your figure will appear shorter. Not all vertical lines create vertical eye movement, and not all horizontal lines produce horizontal eye movement.

Take a look at color, too. Get two circles, of the same-size, one black and one white. Place the black one on a white piece of paper and the white one on a black piece of paper. Which looks larger?

Many factors influence the eye and what it sees. Study your reaction to a pattern design, visualize it on your figure, then ask yourself, “What do I see?” Will this pattern help me look the way I want to look? Will it emphasize my good points?

OTHER POINTS TO CONSIDER

Ask yourself these questions before you buy a pattern.

1. Is the style up to date with fashion trends but not extreme or faddish?
2. Do the pattern and fabric suit each other?
3. Is the pattern suited to your sewing ability?
4. Is it the best figure type and size for your measurements?
5. Can the style be easily altered?
6. Is it suitable for the occasions it will be worn?

Consider the Effect of Pattern-and-Fabric Together

—soft fullness and draped effects suggest soft, pliable fabrics.
—pleats and sharp details suggest fabrics with body that will take a crease and keep it.
—intricate pattern details suggest smooth, plain types of fabric.
—fabrics with prints, plaids or large designs call for a simple pattern.
—check the back of pattern envelope for list of suggested fabrics.

If You Are a Beginner:

Choose simple designs that are easy to put together, firmly woven, easy-to-handle fabrics, and solid colors or all-over prints that help hide less-than-perfect stitches and that don’t require special pattern placement.
Avoid styles that call for extra construction details such as backings and linings that can complicate a simple design.

**YOUR MEASUREMENT RECORD**

The key to good fit is accurate measurements. Take them over well-fitted foundation garments and slip. Tie a cord snugly around waist before measuring. You need the first four measurements illustrated before buying a pattern (1, 2, 3, 4). Knowing your height also helps. All the measurements listed in the following chart will help you to check the fit of your pattern as well as to make any alteration.

Record your body measurements in column 1. Add minimum ease allowance (column 2) to obtain total measurements (column 3).

**Check Measurements with Pattern**

Do your checking directly on the pattern. Key fitting points are neck, shoulder, bust, waist, waist length, and hip line.

Use the basic pattern pieces and lap on seam lines (bodice front and back, skirt pieces, and sleeve).

Measure pattern exactly corresponding to where you took body measurements. Do not measure beyond any seam lines. Subtract allowance for pleats or darts that you measure across.

Record these pattern measurements in column 4 of the chart. Compare columns 3 and 4. Record the difference in column 5 for clues to needed alterations.

Other points to consider are the design of the garment (a fitted sheath or a gathered smock), the fabric (a stretch knit or a firm sharkskin), and your own concept of a garment that looks right and feels right.

**Guide for Checking Fit of Pants**

Average figure—To measure pattern, draw line from crotch seamline, at right angles to grainline. Measure from that line to waist seam (figure 3). If this pattern measurement differs from measurement of waist to seat of chair plus ease, alter both pattern pieces along alteration line.

Rounded figure—Match front and back crotch seams on pattern and measure total seam. If body measurements plus ease and pattern measurements differ, analyze figure. If round front and back, add half the amount needed to each piece along alteration line. If rounder in back or front, add proportionate amounts accordingly.

**Determine Your Figure Type**

Pattern companies make patterns in as many as
eight different types (Table 2, page 5). Using your basic measurements and your height, analyze your body proportions to determine your figure type.

Heights by types vary from about 5’ to 5’6”.

Other areas of variation are: shoulder width, bust location and fullness, hip fullness, waistline, and back waist length.

Study profile illustrations of some figure types to see differences. What type are you? (figure 4).

**Determine Your Size**

Within each type is a size range.

a. Select blouse, dress, suit and coat patterns by bust measurement.

b. Select skirt, slacks and shorts by waist measurement; use hip measurements for straight skirt and pants. If your hips are larger than hip measurement indicated on pattern, check next size.

Before buying pattern, check all four of your basic measurements: bust, waist, hip, and back waist length,

<table>
<thead>
<tr>
<th>Type and Description</th>
<th>Average Height</th>
<th>Difference Between Bust and Waist</th>
<th>Difference Between Waist and Hip</th>
<th>Difference Between Bust and Hip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misses and Average, Women's figure</td>
<td>5'6&quot;</td>
<td>7-8&quot;</td>
<td>9-10&quot;</td>
<td>2&quot;</td>
</tr>
<tr>
<td>Half Size</td>
<td>5’3”</td>
<td>5-6”</td>
<td>10”</td>
<td>4”</td>
</tr>
<tr>
<td>Junior or Petite Miss</td>
<td>5’5”</td>
<td>7-8”</td>
<td>9-10”</td>
<td>2”</td>
</tr>
<tr>
<td>Miss 5’3” and Under or Petite</td>
<td>5’5”</td>
<td>8½”</td>
<td>10”</td>
<td>2”</td>
</tr>
<tr>
<td>Junior Petite</td>
<td>5’1”</td>
<td>8½”</td>
<td>10”</td>
<td>1½”</td>
</tr>
<tr>
<td>Teen</td>
<td>5’3”</td>
<td>6-8”</td>
<td>8-10”</td>
<td>2”</td>
</tr>
<tr>
<td>Sub-Teen or Pre-Teen</td>
<td>5’1½”</td>
<td>5-7”</td>
<td>8-10”</td>
<td>3”</td>
</tr>
<tr>
<td>Young Juniors</td>
<td>5’5”</td>
<td>7½”</td>
<td>9½”</td>
<td>2”</td>
</tr>
<tr>
<td>Chub-deb or Chubbies</td>
<td>5’</td>
<td>2-3½</td>
<td>5-6½”</td>
<td>3”</td>
</tr>
<tr>
<td>Girls</td>
<td>5’</td>
<td>2¾-6”</td>
<td>4½-9”</td>
<td>2-3”</td>
</tr>
</tbody>
</table>
to help determine size and needed alterations. *Ease is included in pattern measurements.*

Correct pattern size will decrease the number of alterations and fittings. Cutting on or taking off from wrong size pattern invites problems. Figure 5 shows how different sizes (12, 14, and 16) vary in length, width, and placement of darts.

![Figure 5: Proportioned Patterns](image)

Are you taller or shorter than average? Many pattern companies are making a limited number of styles in proportioned patterns. The greatest number are available in the “Misses-Womens” types.

If you are:
- a. 5’3” or under, choose “short.”
- b. 5’4” to 5’6”, choose “medium.”
- c. 5’7” or over, choose “tall.”

Within the envelope are either three separate patterns or one pattern with three sets of markings indicating the three proportions. Variations in length are evident in areas of bust, waist, hip, hem, and sleeve.

A complete chart of fabric needed for the three proportions is printed on pattern envelope.

**Differences in Pattern Makes**

Most makes are designed according to standard body measurements for bust, waist, hips, and back waist length. Various pattern companies differ in the amount of ease, slant of shoulder, width through bust and chest, and length and shape of armseye. As you use various makes of patterns you will find one that fits you better than any other. Several pattern companies make a basic fitting pattern in different sizes and types. Basic patterns made up in inexpensive fabrics can help you determine which pattern make fits you best. It can help you recognize what alterations you’ll need to make.

**General Guides for Pattern Alteration**

As you study the areas on your pattern that need to be altered and the alteration directions included with your pattern, keep these things in mind:
1. Add fullness where you need it.
2. Remove fullness where you don’t need it.
3. Keep pattern flat as you make alterations.

Extend grain line markings to the edges of the pattern pieces. Then you can clearly see grain throughout alteration and cutting.

If pattern needs to be cut apart, draw short guide lines across the cutting line and at right angles to it. Match these guide lines when you work with the pattern sections.

Tucking or spreading the pattern causes jogs along edges, correct the line by dividing difference between the two sections.

Make changes within the body of the pattern rather than at the seam lines (with few exceptions).

Try not to change the original shape of neckline, armhole, or shoulder line.

Preserve all pattern markings or other fitting details as you alter.

Do not change general location or fullness of darts. Darts to control bustline fullness should point toward tip of bust. Darts should not extend closer to tip of bust than 1 inch.

Two or more small darts are usually better than one large one.

When making alterations, alter all pieces affected by the change. For example, if you shorten a bodice, shorten the front facing.

**How to Shorten**

1. Using alteration line on pattern as a guide, fold and make tuck as in figure 7.
2. Depth should be $\frac{1}{2}$ amount needed. If amount is large, 2 small tucks will be better than one.
3. Straighten outside cutting line.
4. Some pieces may need shortening in two places as above and below elbow. (Exceptions are circular or flared skirt pieces which may be shortened at bottom.)

![Figure 7: How to Shorten](image)

**How to Lengthen**

1. Cut pattern on alteration line.
2. Tape piece of paper underneath and spread pattern needed amount.
3. Keep grain line and cut pattern edges straight (fig-
ure 8). (Exceptions are circular or flared skirt pieces which may be lengthened at bottom.)

How to Change Length of Shoulder

1. If shoulder is too narrow, cut on needed amount (up to ½”) both front and back, taper to nothing at notches.
2. If shoulder too wide, take extra amount in dart (if pattern has dart make two darts) or trim ¾” to ½” from front only (figure 9).
3. Never trim any off back. Make shoulder dart if easing is not possible.

How to Adjust Width

This method can be used directly on fabric without altering pattern.

Full Bust

1. Lay pattern on fabric (fold or straight of grain); cut neck (a); shoulder (b); and lower edge (c). Figure 10.
2. Move pattern away from center front half the needed amount of increase on front. Keep pattern on exact crosswise grain. Cut underarm line (d). Figure 11.
3. Remove pattern and place over uncut armhole matching sleeve end of shoulder and sleeve end of underarm line (e).
4. Replace pattern, following grain to make construction details.

Full Back

Use the same method as for full bust.
To check where you’ve gained extra ease, replace the pattern on the fabric as it was originally.

Large Upper Arm

Sleeve width can be increased at the underarm seam (a) center of sleeve in line with shoulder seam (b) or both. Do not extend seams (a) more than ½” or spread sleeve (b) more than 1”. Figure 13. Make similar additions on shoulder and underarm of both front and back as shown in figure 14. Do not change neck end of shoulder seam. If extra width is not needed at waistline, make additional waistline darts. Do not taper underarm seam.

Full Hips

One inch may be added to each side seam of skirt to increase width. Make increase full length of skirt, otherwise skirt may not hang properly nor give a flattering silhouette. If the skirt is too large at waistline, use darts in both front and back of skirt to keep grain line straight. Do not increase width of existing darts. Never add more than 4 inches total, the next size larger would be a better choice. Figure 15.

Waistline

Waistline of blouse can be adjusted by changing, adding, or taking away darts. If in doubt whether waist alterations are adequate, provide more fabric for alterations by cutting the lower edge and side seams of waist on the straight grain instead of fol-
lowing outline of pattern. Mark the original cutting lines before removing pattern. If the added amount is not needed, it can be cut away with complete accuracy.

**HOW A WELL-FITTED GARMENT LOOKS**

**Grainline**

At bust, hips, and sleeve on straight garments, the crosswise yarns are parallel to the floor.

The center front and center back of the garment are directly over the same points on the figure.

The hem line is parallel with the floor unless the style suggests otherwise.

**Seamlines**

The vertical seamlines hang straight (plumb) from underarm to hemline.

Shoulder seams are the correct length and angle so as to not create strain lines or wrinkles to the bustline, armhole, or neckline.

The armhole seam follows the natural curve and the sleeve hangs straight from top of shoulder.

The waistline is at exact waistline and appears straight all around.

Darts point to, but don’t go beyond, curved area of the figure.

**Wrinkles or Folds**

Find the cause of the wrinkle and remedy it. Avoid undesirable folds where grain is being pulled. May be due to being pulled too tightly, poor posture or off grain.

**Ease**

A well-fitted garment will allow adequate ease for comfort and freedom of movement without visible strain or pull in any area.

**Balance**

A well-fitted garment appears to be well balanced on the person. There is no sign of strain or pull anywhere.

Check gathering, darts, pleats to be sure they are equal distance from center lines unless otherwise determined by the design.

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