

# How to Take

For the perfect fit, take the right measurements, in the right way

**T**he key to perfecting any pattern, computer-generated or hand-drafted, lies in gathering specific information about the body to be fitted. Although pattern design is an art, taking measurements is a science. Fortunately, the process is systematic and logical, and with time and a patient measuring partner, you can be confident in the accuracy of your measurements.

By following my steps you will acquire a set of measurements to use for fine-tuning the fit of commercial patterns or creating hand-drafted designs. And if you are working with pattern-drafting software, you'll be able to adapt my methods as you follow brand-specific instructions. (Each company has its own marking and measuring protocols that you should follow exactly to get good results with the software.) Accurate measurements can also help you compare the corresponding sections of your favorite garments to discover and understand the amount of wearing ease you prefer.

## Preparation is everything

The prerequisites for accurate measuring are deciding the appropriate garments to wear while being measured and marking key reference points on the body.

### What to wear

Body shape, and subsequently fit, can be greatly affected by the undergarments worn when



## Mark reference points

Mark the body so you'll have consistent reference points while you measure. (The solid lines on our leotard are extra-bold for photography purposes.)

### A Neckline

Identify the natural neckline with a short chain necklace that settles comfortably, just below the slight hollow at the base of the neck.

- Mark the exact center front of this neckline with a small adhesive or pen dot.
- Mark the prominent vertebra at the top of the spine with an adhesive or pen dot. (Bend the head forward to make the vertebra easier to find.)
- Mark a point on each side of the neck, in line with the hollow just behind the earlobe.

### B Bust point

Mark the nipple location with a cross of two pins on the bra fabric or with an adhesive dot.

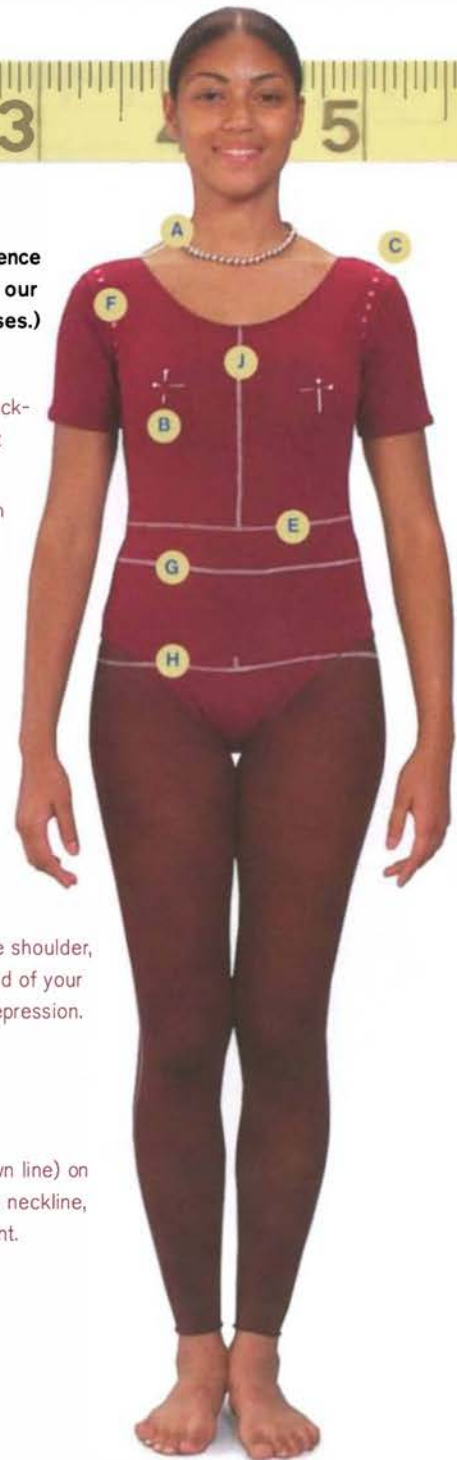
### C Shoulder point

Feel for the end of the flat bone at the end of the shoulder, or raise your arm until a dimple appears at the end of your shoulder and feel for the shoulder bone in this depression. It is important to identify an exact shoulder point.

- Mark it with an adhesive or pen dot.

### D Shoulder seamline

Draw a series of dots (more accurate than a drawn line) on the body, from the side-neck point marked on the neckline, along the top of the shoulder, to the shoulder point.



# Measurements

by Barbara Emodi

## E Waistline

Depending upon body proportions, there are two possible waistlines: a natural waist or, for people who do not have a naturally indented waist, a de facto (chosen) waist, where the top of skirts or trousers sits. Find the natural waist by tying a piece of elastic around the person's waist, and having her bend from side to side until the elastic settles comfortably in the hollow around the middle of her body; take the waist measurement here. If the person does not have an indented waist, adjust the elastic on her body to sit at the de facto waist. This often entails moving the elastic above or below the natural waist, sometimes to be higher at the back and lower at the front.

- Once established, mark the waistline on the body with a pen; the elastic can shift while measuring.

## F Armhole

Mark with a dotted line. Start from the shoulder point, down into the crease formed by the body joining the arm, on both the front and back. (If locating the armhole is difficult, duplicate one from a form-fitting T-shirt, slipping one hand under the sleeve to trace the seamline onto the body.)

## G Abdomen

Mark a line parallel to the floor across the fullest part of the abdomen.

## H Hips

Find the widest part of the lower body by wrapping a measuring tape around the hip area and sliding it down the body, note that the widest part may be anywhere from a few inches to more than 12 inches below the waist.

- Where the measurement is largest, mark a line exactly parallel to the floor all around the body.

## I Side seams

Draw a series of dots perpendicular to the floor from the underarm to the ankle on both sides of the body.

## J Center front and center back

Draw a series of dots perpendicular to the floor from the hollow of the neck to the waist. Repeat from the nape of the neck.

## Check the points of intersection

Be sure all horizontal markings clearly intersect all vertical markings so you'll be able to identify the exact center front, center back, and side seam locations. (Note the center front of your waistline may not be in line with your navel.)

## Marking and measuring tools

- A short, fine chain necklace—to establish a natural neckline
  - Washable markers—to draw lines on skin and/or undergarments
  - ¼-inch adhesive dots
  - Pins
  - Narrow elastic—to locate and mark the waistline
  - Flexible but stable measuring tape
  - 12-inch ruler
- Optional:**
- A form-fitting T-shirt with set-in sleeves—to help identify an armhole
  - Twill tape/cotton cording—for marking crotch length

measurements are taken—bras in particular. To ensure an accurate fit, wear the undergarments you normally do. Be prepared to mark on them if necessary for recording reference points. We photographed our model in a leotard, but you'll get more accurate measurements if the person being measured wears only her best-fitting undergarments.

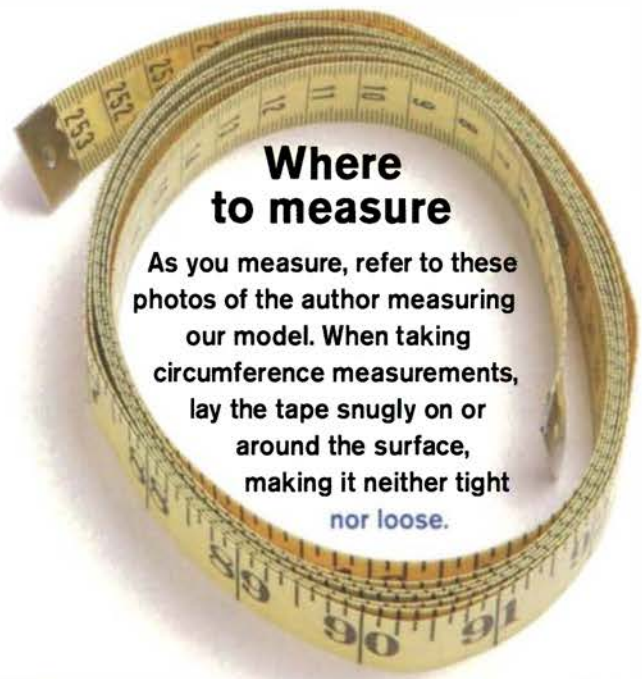
**Gather your tools**

The most important aid in the measurement process is a good-natured, discreet measuring buddy. (There's just no way to take accurate measurements of yourself.)

Additionally, a few tools will be required to mark the reference points and measure the distances. I've supplied a list of these on p. 33 ("Marking and measuring tools").

**Tips on measuring**

Measurements should be taken with the subject standing with natural posture. Arm measurements should be taken with the arm relaxed and slightly bent at the elbow. Keep the tape smooth and level when measuring around the body, and don't measure loosely or with a finger under the tape to build in ease.



**Shoulders**



**Shoulder length:** Measure from the side-neck point to the shoulder point.



**Shoulder-to-shoulder/front:** Measure between the shoulder points in a straight line across the front.



**Shoulder-to-shoulder/back:** Measure between the shoulder points in a straight line across the back.



**Back width:** Measure between the armholes (make sure the tape doesn't get caught up in the shoulder blades).



**Front shoulder slope:** Measure from the shoulder point to the waistline center front in a straight diagonal line, through the bust point.



**Back shoulder slope:** Measure from the shoulder point to the waistline center back.

**Neck to waist:** (not pictured) Measure from the base of the neck to the waistline at the center front and center back.

## Arms



**Arm length (sometimes called over arm):** Keep the arm relaxed with a slight natural bend at the elbow. Take this measurement in two steps, from the shoulder point to the elbow, and then from the elbow to just below the wrist bone.



**Biceps/upper arm:** Measure around the biceps with the arm slightly bent and the biceps relaxed.



**Armhole depth:** Slide a ruler horizontally, high up under the arm; with the tape, measure from the shoulder point to the ruler.

## Neck



**Natural neckline:** Holding the tape so it stands on edge, measure around the base of the neckline as defined by the necklace.



**Neck edge to bust point (also called bust depth):** Measure from the side-neck point to the bust point.



**Neck edge to waist:** Measure from the side-neck point to the waistline in a straight line, through the bust point.

## Bust



**Bust circumference:** Measure the fullest part of the bust with the tape parallel to the floor.



**Upper bust:** Measure the circumference above the bust, with the tape up against the armpit.



**Under bust:** Measure the circumference under the bust, holding the tape in line with the bottom edge of the bra.



**Chest width:** Measure above the bust from armhole to armhole, holding the tape parallel to the floor.

It is very common for there to be significant asymmetries in a body. For this reason it is important to measure both sides of the body; if you find discrepancies greater than  $\frac{1}{2}$  inch, adjust or draft the pattern with distinct right and left side pattern pieces.

### Measuring—the first step to a good fit

Taking accurate measurements isn't going to solve all your fitting problems. Fitting is of course a two-step process. The first step involves a flat pattern that is produced or adjusted according to individual body measurements, and in the

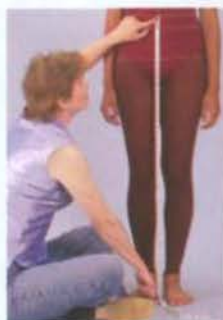
## Legs



**Outer seam:** Measure from the side waist to the preferred pants hem.



**Inseam:** Measure from the lowest part of the crotch to the preferred pants hem. Tape the measuring tape to a 12-inch ruler to comfortably take this measurement. Don't spread legs any wider than necessary.



**Waist to floor/front and back:** Measure the perpendicular distance from the waistline to the floor at the center front and center back.

## Crotch



**Crotch length/front and back:** Measure from the waistline center front to the waistline center back through the crotch, holding the tape comfortably close to the body. Note the distance from the center front to the inseam (crotch front length) and subtract it from the total to derive the crotch back length. (Or mark and then measure a length of twill tape to determine these dimensions.)



**Crotch depth:** Have the person sit on a flat chair, and use a ruler to measure from the marked waistline to the chair seat. Keep the ruler perpendicular to the seat.

## Waist and hips

All circumference measurements taken below the waistline should be accompanied by a depth measurement—the vertical distance between the waist and the specific measurement.



**Waist:** Measure the circumference of the marked waistline.



**Abdomen:** Measure from side to side across the fullest part of the abdomen.



**Hip circumference:** Measure around the fullest part of the hips with the tape parallel to the floor. (When the hip is not the fullest lower body measurement, take another measurement at the fullest part.)

end a pattern can only be as good as the measurements on which it is based. Once the pattern is cut in fabric expect to do some final fine-tuning, as the characteristics of the fabric will affect ease and other factors that influence the fit of the finished garment. But a set of accurate measurements will get you off to a good start. ♦

*Barbara Emodi has recently joined Threads as a contributing editor, from her home in Halifax, Nova Scotia.*

### ONLINE EXTRA

To record your measurements easily, print out our chart from [www.threads magazine.com](http://www.threads magazine.com).