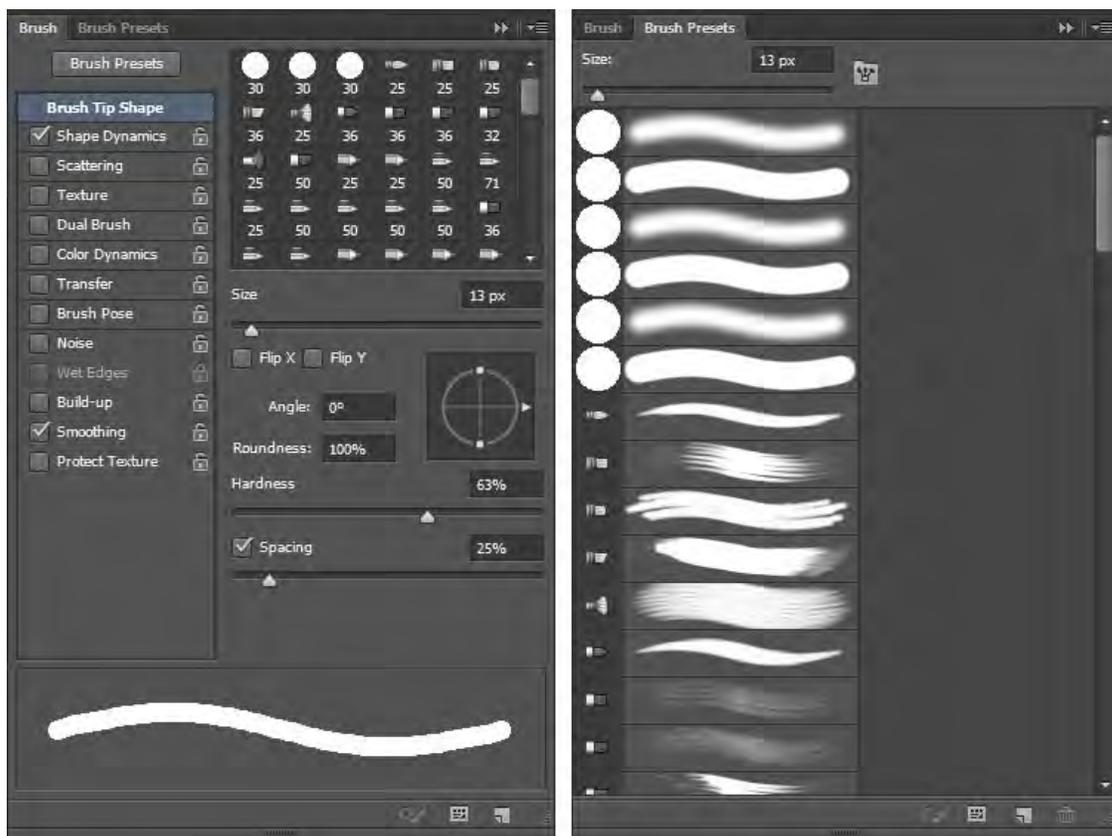


## How to use painting tools

Previous guides describe how to use Adobe Photoshop CS6 to modify an existing image. In this guide, you create new content by using Photoshop's painting tools.

The Brush tool and the Pencil tool work like traditional drawing tools by applying color with brush strokes. The Gradient tool, Fill command, and Paint Bucket tool apply color to large areas. Tools such as the Eraser tool, Blur tool, and Smudge tool modify the existing colors in the image. Some drawing tools provide a more natural and realistic experience by eroding as you work. Save favorite blunted tips as presets that you can reuse over and over.

Photoshop gives you a remarkably wide set of options for brush tools that provide good starting points for creating realistic painting effects. You can select from a number of brush tips and then modify these further by using keyboard shortcuts or from within the Brush and Brush Presets panels (**Figure 1**). To see a selection of brush presets, try selecting different Brush tools from the Tools panel. Observe the changes in the Brush options and presets. You can even create your own brush settings and save these for later use.



**Figure 1** Brush panel and Brush Presets panel

This guide is a basic introduction to painting. After learning the basics, you should experiment with the other painting tools to find the settings that work for you.

This guide covers four tools:

- *Brush tool* Paint the current foreground color on an image and create soft strokes of color.
- *Pencil tool* Paint the current foreground color on an image and create hard-edged lines.
- *Mixer Brush tool* Simulate realistic painting techniques such as mixing colors on the canvas, combining colors on a brush, and varying paint wetness across a stroke
- *Pattern Stamp tool* Paint with the pattern selected in the Pattern picker.

## Setting brush options

With each brush, you set one or more of the following options in the options bar (**Figure 2**). A *preset brush* is a saved brush tip with defined characteristics, such as size, shape, and hardness.



**Figure 2** Brush options bar

- *Tool Preset picker* Save settings for the current tool, such as Airbrush Soft Round 50% Flow. As you change settings for the Brush tools, you can save your settings for later use.
- *Brush Preset picker* Select from a series of preset brushes. There is a wide range of these preset brushes, and you can also create your own.
- *Mode* Describe how painted colors will blend with the underlying image. See the Photoshop Help topic "List of blending modes" for more detail.
- *Opacity* Set the transparency for painted lines, from 0% (invisible) to 100% (opaque). As you paint over an area, the color's transparency remains the same until you release the mouse button, no matter how many times you move the pointer over the area. When you release the mouse button and then paint over the same area, you apply additional color at the same opacity.

### Brush only options

- *Flow* Set the rate at which color is applied as you paint. For example, if you set the opacity to 100% and the flow to 33%, the color moves 33% toward 100% opacity each time you move over an area.
- *Airbrush mode* Simulate painting with an airbrush. Paint builds up as you hold down the mouse button. Brush hardness, opacity, and flow options control how fast and how much paint is applied. Click the button to toggle this option on or off.

### Pencil only option

- *Auto erase* Paint the background color over areas that contain the foreground color.

### Mixer Brush only options

- *Current Brush Load swatch* From the pop-up panel, click Load Brush to fill the brush with the reservoir color, or Clean Brush to remove paint from the brush. To automatically perform these tasks after each stroke, click the Load or Clean buttons.
- *Preset pop-up menu* Apply popular combinations of Wet, Load, and Mix settings.
- *Wet* Control how much paint the brush picks up from the canvas. Higher settings produce longer paint streaks.
- *Load* Specify the amount of paint loaded in the reservoir. At low load rates, paint strokes dry out more quickly.
- *Mix* Control the ratio of canvas paint to reservoir paint. At 100%, all paint is picked up from the canvas; at 0%, all paint comes from the reservoir. (The Wet setting, however, continues to determine how paints mix on the canvas.)
- *Sample All Layers* Pick up canvas color from all visible layers.

**Note:** The options bar presents only a subset of brush options. Many other options—brush tips, settings, and more—are available through the Brushes panel. See Photoshop Help for more information on these options.

## Painting with the Brush tool

Use the Brush tool to create soft strokes of color.

*To paint with the Brush:*

1. Open a new document in Photoshop.
2. From the painting tools, select the Brush tool (**Figure 3**).
3. Choose a color for the brush by using one of the following methods:
  - To open the Adobe Color Picker, click the Foreground Color selection box in the Tools panel.
  - To open the heads-up-display (HUD) color picker in Windows, hold down Shift+Alt while you Right-click. Then drag to select a color hue and shade, and release (**Figure 4**).
  - To open the heads-up-display (HUD) color picker in Mac OS, hold down Control+Option+Command while you click and hold. Then drag to select a color hue and shade, and release (**Figure 4**).
4. Choose a relatively large brush, such as 50 px, from the Brush Preset picker.

**Note:** You can also set the diameter and hardness manually in the Brush Preset picker. Hardness determines the softness of the line's edges.

5. In the options bar, leave Mode set to Normal.
6. Set Opacity to 100%.
7. Set Flow to 20%.

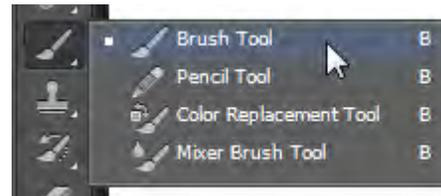
When you set Flow to 20%, the darkness of the line moves 20% closer to full opacity each time you overlap lines.

8. Draw freehand by dragging in the image. Without lifting the pointer, drag back over the line you just painted (**Figure 5**).

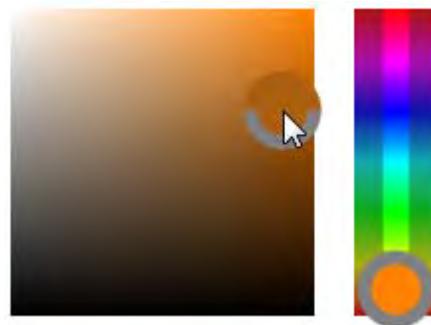
Where the lines overlap, the paint becomes darker because you set Flow to 20%. In that area, the traced-over line has an opacity of 40%

**Note:** To draw a straight line, click a starting point in the image. Shift-click an ending point for the line.

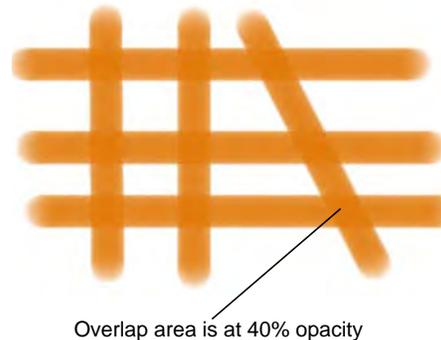
9. To draw a new line, release the mouse button and click on the image again.



**Figure 3** Painting tools



**Figure 4** HUD color picker



**Figure 5** Drawing with Brush, Opacity 100%, Flow 20%

## Painting with the Pencil tool

Use the Pencil Tool to create hard-edged lines.

To paint with the Pencil:

1. Create a new Photoshop document.
2. From the painting tools, select the Pencil tool (**Figure 3**).
3. Choose a color for the Pencil tool by using one of the following methods:
  - To open the Adobe Color Picker, click the Foreground Color selection box in the Tools panel. Select a color and click OK.
  - To open the heads-up-display (HUD) color picker in Windows, hold down Shift+Alt while you Right-click. Then drag to select a color hue and shade, and release (**Figure 4**).
  - To open the heads-up-display (HUD) color picker in Mac OS, hold down Control+Option+Command while you click and hold. Then drag to select a color hue and shade, and release (**Figure 4**).
4. From the Brush Preset picker, manually adjust the Diameter (brush size) to create a small-sized brush, perhaps 20 px (**Figure 6**).
 

**Note:** You can also select a preset size and shape in the Brush Preset picker. Hardness determines the softness of the line's edges.
5. In the options bar, leave Mode set to Normal.
6. Make sure Opacity is set to 100%.
7. Draw by using one of the following methods:
  - To draw a straight line, click a starting point in the image. Shift-click an ending point for the line.
  - To draw freehand, drag in the image.
8. Change Opacity to 50% in the options bar and draw another line that overlaps the first line (**Figure 7**).
 

Observe that the line is half as dark as the first line and that the first line shows through wherever you overlapped it.



**Figure 6** Brush options in the Brush Preset picker



**Figure 7** Overlap lines with opacity set to 50%

## Painting with the Mixer Brush tool

Use the Mixer Brush to create realistic painting techniques such as mixing colors on the canvas, combining colors on a brush, and varying paint wetness across a stroke.

The Mixer Brush has two paint wells, a reservoir and a pickup. The *reservoir* stores the final color deposited onto the canvas and has more paint capacity. The *pickup* well receives paint only from the canvas; its contents are continuously mixed with canvas colors.

To paint with the Mixer Brush:

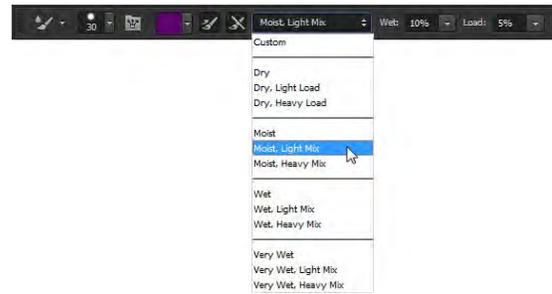
1. Open Photoshop and create a new document.
2. From the painting tools, select the Mixer Brush tool (**Figure 3**).
3. To load paint into the reservoir, Alt-click (Windows) or Option-click (Mac OS) the canvas. Or, choose a foreground color.

**Note:** When you load paint from the canvas, the brush tip reflects any color variation in the sampled area. If you prefer brush tips of uniform color, select Load Solid Colors Only from the Brush Load menu in the options bar.

4. From the Brush Preset picker, manually adjust the Diameter to create a medium-sized brush, perhaps 25 px.

**Note:** You can also select a preset size and shape in the Brush Preset picker.

5. In the options bar, set Mixer Brush Combinations options using the preset pop-up menu to apply popular combinations of Wet, Load, and Mix settings (**Figure 8**).
6. Do one or more of the following:
  - To draw a straight line, click a starting point in the image, and then Shift-click an ending point (**Figure 9**).
  - When using the Brush tool as an airbrush, hold down the mouse button without dragging to build up color (**Figure 10**).
  - Drag in the image to paint. Notice how the paint dries out towards the end of the stroke. Select another foreground color from the toolbox and drag over the painted area. Observe how the paint blends canvas colors and varies paint wetness (**Figure 11**).



**Figure 8** Mixer Brush Combinations menu in the options bar



**Figure 9** Shift-click to paint a straight line



**Figure 10** Using the Mixer Brush as an airbrush



**Figure 11** Dragging the Mixer Brush tool with multiple colors

## Using specialty brush tips

A large number of brush tips are included with Photoshop and are available across all of the painting tools. These range from artistic brushes—wet or calligraphic brushes—to specialty brushes such as starbursts or snowflakes. In the Brush panel, you can select preset brushes from the Brush Presets panel, but you can also modify existing brushes and design new custom brushes. The Brush panel contains the brush tip options that determine how paint is applied to an image. For example, advanced options include Brush Pose which allow you to change the Tilt, Rotation, and Pressure of your paint brush for a broader range of realistic painting effects (**Figure 12**).



**Figure 12** 25px, Flat Fan Bristle strokes and Brush Pose settings

The brush stroke preview at the bottom of the panel shows how paint strokes look with the current brush options.

You can choose from two types of brush shape options from the Brush panel: Standard tip and bristle tip.

### Standard brush tip options

For standard brush tips, you can set the following options in the Brush panel:

- *Diameter (Size)* Control the size of the brush. Enter a value in pixels or drag the slider.
- *Use Sample Size* Reset the brush to its original diameter. This option is available only if the brush tip shape was created by sampling pixels in an image.
- *Flip X* Change the direction of a brush tip on its x axis.
- *Flip Y* Change the direction of a brush tip on its y axis.
- *Angle* Specify the angle by which an elliptical or sampled brush's long axis is rotated from horizontal. Type a value in degrees, or drag the horizontal axis in the preview box.
- *Roundness* Specify the ratio between the brush's short and long axes. Enter a percentage value, or drag the points in the preview box. A value of 100% indicates a circular brush, a value of 0% indicates a linear brush, and intermediate values indicate elliptical brushes.

- *Hardness* Control the size of the brush's hard center. Type a number, or use the slider to enter a value that is a percentage of the brush diameter. You can't change the hardness of sampled brushes.
- *Spacing* Control the distance between the brush marks in a stroke. To change the spacing, type a number, or use the slider to enter a value that is a percentage of the brush diameter. When this option is deselected, the speed of the cursor determines the spacing

### Bristle tip options

Bristle tips let you specify precise bristle characteristics, creating highly realistic, natural-looking strokes. Set the following bristle tip shape options in the Brush panel:

- *Shape* Determine the overall arrangement of bristles.
- *Bristles* Control overall bristle density.
- *Length* Higher settings simulate the extended, trailing strokes of long bristles; lower settings produce more abrupt strokes.
- *Thickness* Control the width of individual bristles.
- *Stiffness* Higher settings provide more precise control; lower settings produce more fluid strokes.
- *Angle* Determine the brush angle with painting with a mouse.
- *Spacing* Control the distance between the brush marks in a stroke. To change the spacing, type a number, or use the slider to enter a value that is a percentage of the brush diameter. When this option is deselected, the speed of the cursor determines the spacing.

To use brush tips:

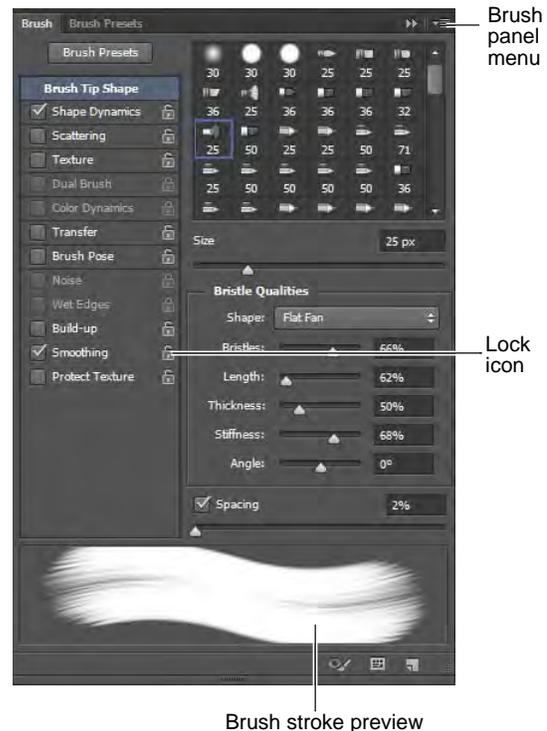
1. Choose Window > Brush.

The Brush panel opens (**Figure 13**).

2. In the Brush panel, select a brush tip shape.
3. Select Brush Tip Shape on the left side of the Brush panel, and set options.

In the example (**Figure 13**), the #25 Flat Fan bristle brush is used.

**Note:** Some brushes present a thumbnail profile of the brush tip shape in the document window to help you select the appropriate brush (**Figure 14**).



**Figure 13** Brush panel

4. Drag in the image to paint with the specialty brush (Figure 15).
5. To lock brush tip shape attributes (retaining them if you select another brush preset), click the unlock icon . To unlock the tip, click the lock icon .
6. To save the brush for use later, choose New Brush Preset from the Brush panel menu.

**Note:** To save your new brush permanently or distribute it to other users, you must save the brush as part of a set of brushes. Choose Save Brushes from the Brush Presets panel menu, and then save to a new set or overwrite an existing set. If you reset or replace the brushes in the Brush Presets panel without saving it in a set, you could lose your new brush.



Figure 14 Thumbnail profile of a bristle brush tip



Figure 15 Painting with a specialty brush tip

## Using the Pattern Stamp tool

A *pattern* is an image that is repeated, or tiled, when you use it to fill a layer or selection. You can select a pattern from the pattern libraries or create your own patterns.

To use the Pattern Stamp tool:

1. Click the Clone Stamp tool, and hold down the mouse button, and select the Pattern Stamp tool (Figure 16).  
Observe that the options bar is slightly different than it is for the Brush tool.
2. In the options bar, open the Pattern picker (Figure 17).  
Initially, the selection of patterns in the Pattern picker may be limited. You can choose to load additional patterns or to replace the current patterns.

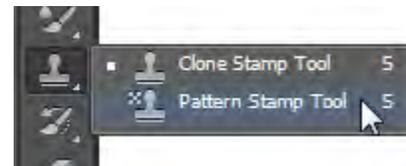
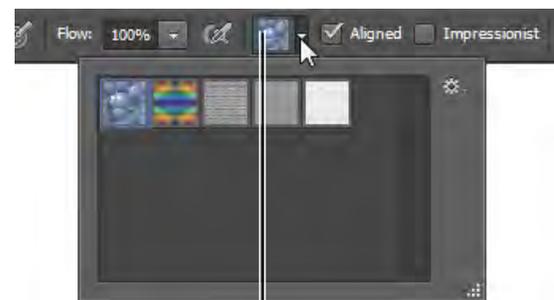


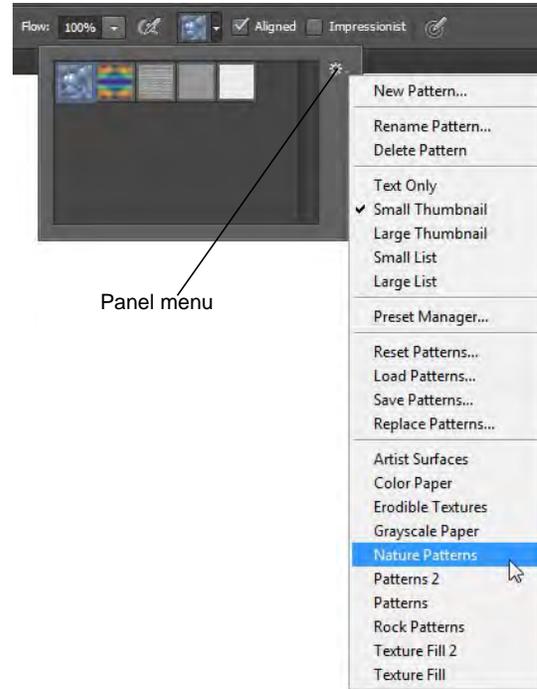
Figure 16 Tools panel



Selected pattern

Figure 17 Pattern picker

3. Open the panel menu to see the available pattern libraries (**Figure 18**).
4. Select the library file you want to use.
5. Click OK to replace the current list, or click Append to add the library to the current list.
6. Select a pattern from the Pattern picker.
7. Select the Aligned option in the options bar to keep the pattern aligned with your original starting point.  
Otherwise, the pattern starts anew each time you release the mouse button.
8. Leave the Impressionist option deselected.  
With this option on, the pattern appears in blocks of color.
9. Drag on the image to draw with the Pattern Stamp tool (**Figure 19**).



**Figure 18** Panel menu in the Pattern picker



**Figure 19** Painting with the Pattern Stamp tool

## Using erodible brush tips

Soft drawing tools such as charcoal, pastel, or Conté are often used in art for expressive drawings and making rough sketches. As these drawing tools are used, the tips wear down and can be sharpened to create different drawing effects. Photoshop makes the experience of true-to-life, erodible drawing tools available with certain brush tips (Figure 20). You can draw with an erodible brush tip, sharpen it, and save your favorite blunted tips as presets.

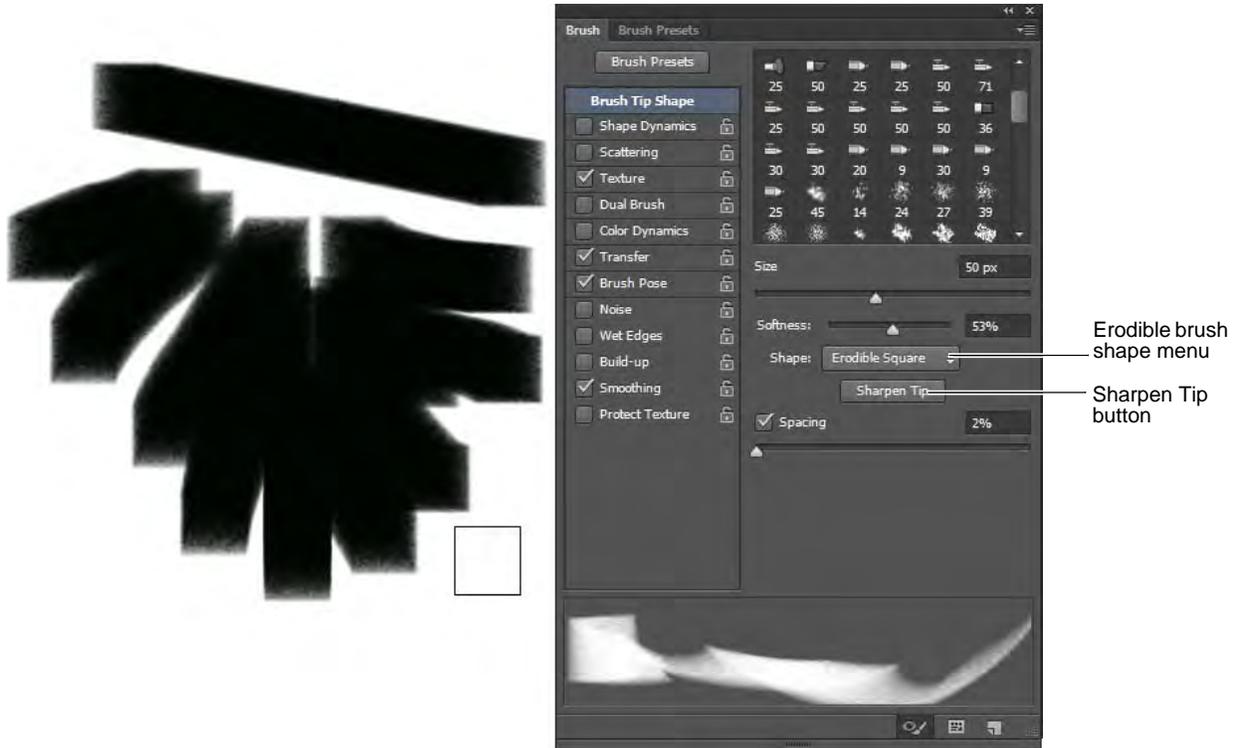


Figure 20 50px, Square Charcoal brush tip, and Brush panel with Erodible Shape menu

To use erodible brush tips:

1. From the painting tools, select the Brush tool (Figure 21).
2. Choose Window > Brush.  
The Brush panel opens.
3. In the Brush panel, select the Brush Presets tab.
4. Scroll down to locate one of the erodible drawing brush tips such as the Square Charcoal, Rounded Watercolor, Crayon, Pastel, or Pencil brush presets.

In the example (Figure 20), the Square Charcoal brush is used, with the size set to 50 pixels.

5. In the Brush panel, select the Brush tab.

Confirm that the selected brush preset includes the erodible Shape menu options (Figure 20).

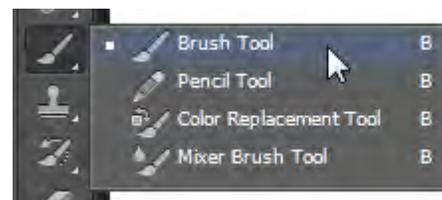


Figure 21 Painting tools

6. Select the Brush Pose option in the Brush panel and adjust the tilt, rotation or pressure of the brush tip. Experiment with the default settings for Tilt X, Tilt Y, Rotation, and Pressure.

Observe the change in the brush profile thumbnail as you make your adjustments (**Figure 22**).

7. Drag in the image to draw with the erodible brush tip.

Observe the changes in the stroke thickness and how the brush profile thumbnail changes as the tip wears down (**Figure 23**).

8. (Optional) To restore the brush tip to its original state, click Brush Tip Shape on the left side of the Brush panel, and then click the Sharpen Tip button on the right side of the panel.

**Note:** To save your new brush permanently, you must save the brush as part of a set of brushes. Choose Save Brushes from the Brush Presets panel menu, and then save to a new set or overwrite an existing set. If you reset or replace the brushes in the Brush Presets panel without saving it in a set, you could lose your new brush.



**Figure 22** Thumbnail profile of a square charcoal brush tip



**Figure 23** Drawing with the square charcoal erodible brush tip