

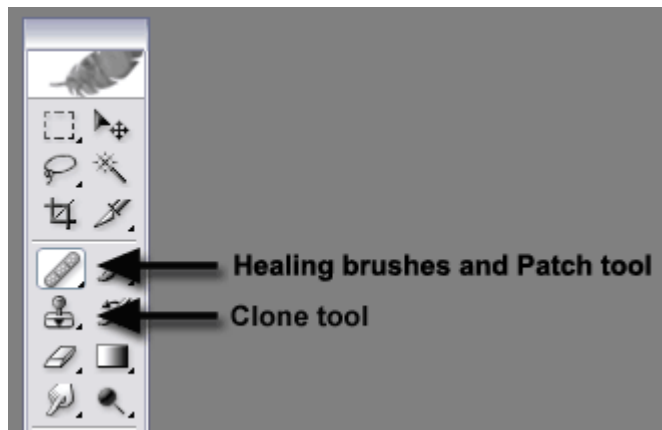
The repairing and restoring tools

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Images can be restored and repaired in Photoshop. For instance, dust, scratch marks, damage and unwanted elements can be removed.

There are four main tools in the tool box which can be used for this process:

- Spot Healing Brush
- Healing Brush
- Patch
- Clone.



Restoring and repairing will often involve using a combination of these tools.

These tools work by sampling an area of the image. They use the sample to paint over the area to be repaired.

Because the tools work by sampling a 'good' area of the image, it is easier to repair an image if there are similar, unblemished, areas to one that needs repairing.

The restore and repair tools, except the Patch tool, work like brushes.

Overview of the tools

Spot Healing Brush

This tool is useful for repairing small spots and blemishes.

Good for use in areas that are uniform e.g. skies, skin and soft textures.

Not so good for areas with contrasting edges or defined patterns.

To use the Spot Healing simply click or drag on an area to be repaired.

It works by matching the texture, lighting, and shading of the sampled pixels to the repaired area.

Healing Brush

This tool works in a similar way to the Spot Healing Brush. The difference is that this tool allows the user to define which part of the image is to be sampled to repair a part of the image.

It works by matching the texture, lighting, and shading of the sampled pixels to the repaired area.

Patch

This tool is good for repairing areas with defined edges or patterns.


Use the Patch tool in areas where Spot Healing or Healing Brushes are not effective.

The Patch tool works by creating a selection of the area to be repaired. The selection is just like one that can be made with a Selection tool.

The outline of the selection can then be positioned over another, good, area of the image. This becomes the area to be sampled and is then automatically painted over the area to be repaired.

Like the Spot Healing and Healing Brush tools, the Patch tool matches the texture, lighting, and shading of the sampled pixels to the repaired area.

Clone

The Clone Stamp tool  works by sampling a user defined area which can then be painted over an area to be repaired.

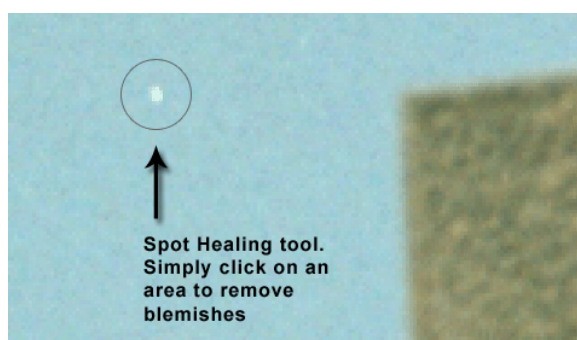
This tool does not match the texture, lighting, and shading of the sampled pixels to the repaired area. Essentially, it works literally by painting over the repaired area. As a result of the way this tool works, it can also be used for painterly or artistic effects.

Using the repair and restore tools

Spot Healing Brush

Click or drag on an area to be fixed. Change the diameter of the brush to suit. Usually, 100% hardness is appropriate as the tool does a good job of blending the fixed area with the surrounding area.

Brush size can be changed by using the [and] keys.

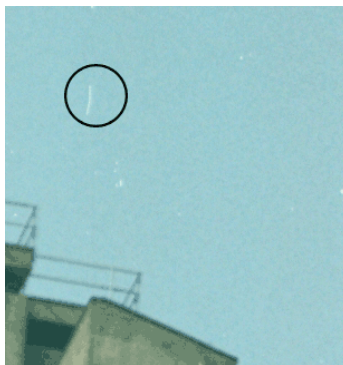


Healing Brush

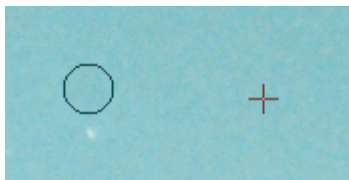
1. Define a target area *to copy from* by *Alt* clicking on the image. This defines the area of the image to be sampled that will be used to paint over the area to be repaired.



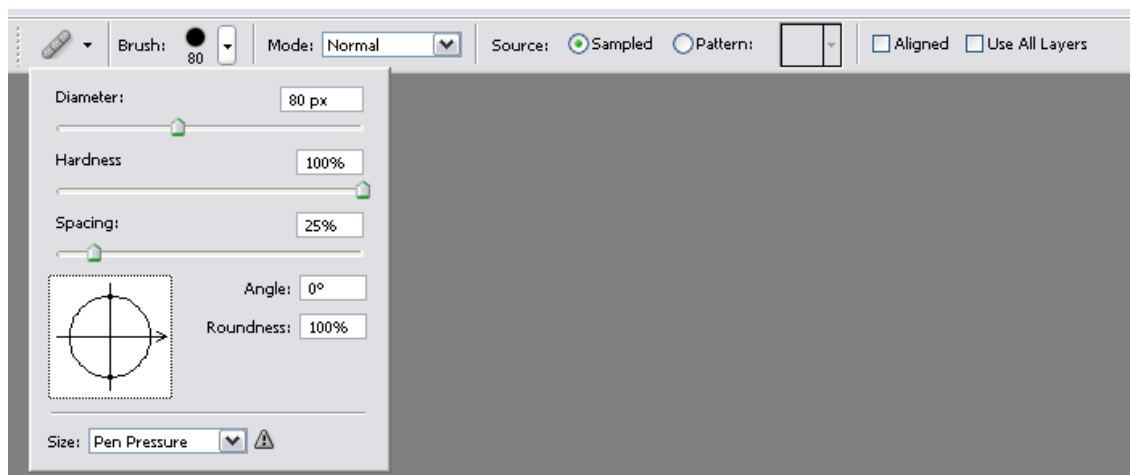
2. Paint over the area to be repaired.



When using this tool, a cross will appear to indicate the area that is being sampled.



Options for the tool can be set in the Options palette. For most uses the Mode should be Normal and the Source will be Sampled.



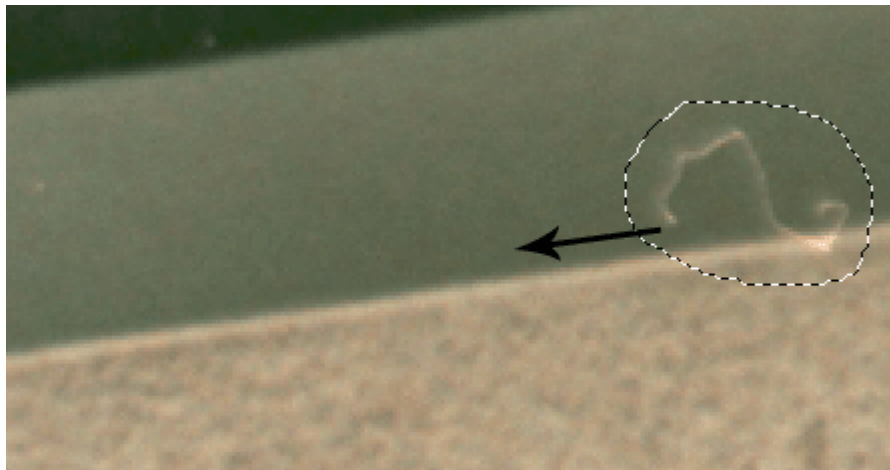
Select a brush size and hardness by clicking on the brush icon in the Options. Spacing should be kept low e.g. 25% or less.

Brush size can also be changed by using the [and] keys.

Patch

The patch tool works by making a selection. Use this tool on areas that have defined edges.

1. With the Patch tool, draw around the area to be repaired. This will create a selection.



Click and drag inside the selection and move it to an area that can be used to replace the area to be repaired. When doing this a preview of the repair appears in the originally selected area.

2. When a match for the repair has been found, release the mouse. The image is now repaired.

Finally, deselect the selection.

Note: The Patch tool works in two main ways. These are Source and Destination and are found in the Option panel for the tool. The method described above uses the *Source* method. Destination is the opposite. With the Destination method, a selection is made first of an area that will do the repair. This selection is then dragged and released on the area to be repaired.

Clone

In earlier versions of Photoshop, this was the only tool for repairing and restoring. This tool works in a similar way to the Healing Brush. The main difference with the Clone tool is that it literally paints on the image and does not automatically blend pixels into the image.

The function of the Clone goes beyond repairing as it can also be used for artistic effect as a brush for painting with cloned regions.

The Clone Stamp tool works by sampling an area which is then used to paint over another part of the image. It is also possible to clone from one layer onto another layer.

Use this tool to paint over areas where the Healing Brush and Patch tools are inadequate, for instance where their pixel blending properties produce unwanted results.

1. Define an area that you will sample from by *Alt* clicking on the image.
2. Paint over the area to be repaired.

Change the size and brush hardness options as required. A soft edge brush will fade out the repair into the surrounding area. Reducing the opacity of the Clone tool from the options panel helps to produce a gradual build up of effect.

The tool works in two main ways; Aligned source and Non-Aligned source. This is found in the options panel.



Aligned maintains the same distance from the fixed area to the area that is sampled wherever the tool is used in the image.

Non-Aligned returns the sampled area to the point originally defined each time the mouse is released.