

# HTML Event Attributes

## Global Event Attributes

HTML 4 added the ability to let events trigger actions in a browser, like starting a JavaScript when a user clicks on an element.














To learn more about programming events, please visit our [JavaScript tutorial](#).

Below are the global event attributes that can be added to HTML elements to define event actions.

 = New event attributes in HTML5.





## Window Event Attributes

Events triggered for the window object (applies to the <body> tag):

Attribute	Value	Description
<a href="#"><u>onafterprint</u></a>	 <i>script</i>	Script to be run after the document is printed
<a href="#"><u>onbeforeprint</u></a>	 <i>script</i>	Script to be run before the document is printed
<a href="#"><u>onbeforeunload</u></a>	 <i>script</i>	Script to be run when the document is about to be unloaded
<a href="#"><u>onerror</u></a>	 <i>script</i>	Script to be run when an error occur
<a href="#"><u>onhashchange</u></a>	 <i>script</i>	Script to be run when there has been changes to the anchor part of the a URL
<a href="#"><u>onload</u></a>	<i>script</i>	Fires after the page is finished loading
<a href="#"><u>onmessage</u></a>	 <i>script</i>	Script to be run when the message is triggered
<a href="#"><u>onoffline</u></a>	 <i>script</i>	Script to be run when the browser starts to work offline
<a href="#"><u>ononline</u></a>	 <i>script</i>	Script to be run when the browser starts to work online
<a href="#"><u>onpagehide</u></a>	 <i>script</i>	Script to be run when a user navigates away from a page
<a href="#"><u>onpageshow</u></a>	 <i>script</i>	Script to be run when a user navigates to a page
<a href="#"><u>onpopstate</u></a>	 <i>script</i>	Script to be run when the window's history changes
<a href="#"><u>onresize</u></a>	 <i>script</i>	Fires when the browser window is resized
<a href="#"><u>onstorage</u></a>	 <i>script</i>	Script to be run when a Web Storage area is updated
<a href="#"><u>onunload</u></a>	<i>script</i>	Fires once a page has unloaded (or the browser window has been closed)

## Form Events

Events triggered by actions inside a HTML form (applies to almost all HTML elements, but is most used in form elements):

Attribute	Value	Description
<a href="#"><u>onblur</u></a>	<i>script</i>	Fires the moment that the element loses focus
<a href="#"><u>onchange</u></a>	<i>script</i>	Fires the moment when the value of the element is changed
<a href="#"><u>oncontextmenu</u></a>	 <i>script</i>	Script to be run when a context menu is triggered
<a href="#"><u>onfocus</u></a>	<i>script</i>	Fires the moment when the element gets focus
<a href="#"><u>oninput</u></a>	 <i>script</i>	Script to be run when an element gets user input
<a href="#"><u>oninvalid</u></a>	 <i>script</i>	Script to be run when an element is invalid
<a href="#"><u>onreset</u></a>	 <i>script</i>	Fires when the Reset button in a form is clicked
<a href="#"><u>onsearch</u></a>	<i>script</i>	Fires when the user writes something in a search field (for <input="search">)
<a href="#"><u>onselect</u></a>	<i>script</i>	Fires after some text has been selected in an element
<a href="#"><u>onsubmit</u></a>	<i>script</i>	Fires when a form is submitted










## Keyboard Events

Attribute	Value	Description
<a href="#"><u>onkeydown</u></a>	<i>script</i>	Fires when a user is pressing a key
<a href="#"><u>onkeypress</u></a>	<i>script</i>	Fires when a user presses a key
<a href="#"><u>onkeyup</u></a>	<i>script</i>	Fires when a user releases a key

## Mouse Events

Events triggered by a mouse, or similar user actions:

Attribute	Value	Description
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<a href="#"><u>onclick</u></a>	<i>script</i>	Fires on a mouse click on the element
<a href="#"><u>ondblclick</u></a>	<i>script</i>	Fires on a mouse double-click on the element
<a href="#"><u>ondrag</u></a>	 <i>script</i>	Script to be run when an element is dragged
<a href="#"><u>ondragend</u></a>	 <i>script</i>	Script to be run at the end of a drag operation
<a href="#"><u>ondragenter</u></a>	 <i>script</i>	Script to be run when an element has been dragged to a valid drop target
<a href="#"><u>ondragleave</u></a>	 <i>script</i>	Script to be run when an element leaves a valid drop target
<a href="#"><u>ondragover</u></a>	 <i>script</i>	Script to be run when an element is being dragged over a valid drop target
<a href="#"><u>ondragstart</u></a>	 <i>script</i>	Script to be run at the start of a drag operation
<a href="#"><u>ondrop</u></a>	 <i>script</i>	Script to be run when dragged element is being dropped
<a href="#"><u>onmousedown</u></a>	<i>script</i>	Fires when a mouse button is pressed down on an element
<a href="#"><u>onmousemove</u></a>	<i>script</i>	Fires when the mouse pointer is moving while it is over an element
<a href="#"><u>onmouseout</u></a>	<i>script</i>	Fires when the mouse pointer moves out of an element
<a href="#"><u>onmouseover</u></a>	<i>script</i>	Fires when the mouse pointer moves over an element
<a href="#"><u>onmouseup</u></a>	<i>script</i>	Fires when a mouse button is released over an element
<a href="#"><u>onmousewheel</u></a>	<i>script</i>	<b>Deprecated.</b> Use the <a href="#"><u>onwheel</u></a> attribute instead
<a href="#"><u>onscroll</u></a>	 <i>script</i>	Script to be run when an element's scrollbar is being scrolled
<a href="#"><u>onwheel</u></a>	 <i>script</i>	Fires when the mouse wheel rolls up or down over an element




## Clipboard Events

Attribute	Value	Description
<a href="#"><u>oncopy</u></a>	<i>script</i>	Fires when the user copies the content of an element
<a href="#"><u>oncut</u></a>	<i>script</i>	Fires when the user cuts the content of an element
<a href="#"><u>onpaste</u></a>	<i>script</i>	Fires when the user pastes some content in an element




## Media Events

Events triggered by medias like videos, images and audio (applies to all HTML elements, but is most common in media elements, like <audio>, <embed>, <object>, and <video>):

Attribute	Value	Description
<a href="#"><u>onabort</u></a>	<i>script</i>	Script to be run on abort
<a href="#"><u>oncanplay</u></a>	 <i>script</i>	Script to be run when a file is ready to start playing (when it has buffered enough to begin)
<a href="#"><u>oncanplaythrough</u></a>	 <i>script</i>	Script to be run when a file can be played all the way to the end without pausing for buffering
<a href="#"><u>oncuechange</u></a>	 <i>script</i>	Script to be run when the cue changes in a <track> element
<a href="#"><u>ondurationchange</u></a>	 <i>script</i>	Script to be run when the length of the media changes
<a href="#"><u>onemptied</u></a>	 <i>script</i>	Script to be run when something bad happens and the file is suddenly unavailable (like unexpectedly disconnects)
<a href="#"><u>onended</u></a>	 <i>script</i>	Script to be run when the media has reach the end (a useful event for messages like "thanks for listening")
<a href="#"><u>onerror</u></a>	 <i>script</i>	Script to be run when an error occurs when the file is being loaded
<a href="#"><u>onloadeddata</u></a>	 <i>script</i>	Script to be run when media data is loaded
<a href="#"><u>onloadedmetadata</u></a>	 <i>script</i>	Script to be run when meta data (like dimensions and duration) are loaded
<a href="#"><u>onloadstart</u></a>	 <i>script</i>	Script to be run just as the file begins to load before anything is actually loaded
<a href="#"><u>onpause</u></a>	 <i>script</i>	Script to be run when the media is paused either by the user or programmatically
<a href="#"><u>onplay</u></a>	 <i>script</i>	Script to be run when the media is ready to start playing
<a href="#"><u>onplaying</u></a>	 <i>script</i>	Script to be run when the media actually has started playing
<a href="#"><u>onprogress</u></a>	 <i>script</i>	Script to be run when the browser is in the process of getting the media data
<a href="#"><u>onratechange</u></a>	 <i>script</i>	Script to be run each time the playback rate changes (like when a user switches to a slow motion or fast forward mode)
<a href="#"><u>onseeked</u></a>	 <i>script</i>	Script to be run when the seeking attribute is set to false indicating that seeking has ended
<a href="#"><u>onseeking</u></a>	 <i>script</i>	Script to be run when the seeking attribute is set to true indicating that seeking is active
<a href="#"><u>onstalled</u></a>	 <i>script</i>	Script to be run when the browser is unable to fetch the media data for whatever reason
<a href="#"><u>onsuspend</u></a>	 <i>script</i>	Script to be run when fetching the media data is stopped before it is completely loaded for whatever reason

ontimeupdate		<i>script</i>	Script to be run when the playing position has changed (like when the user fast forwards to a different point in the media)
onvolumechange		<i>script</i>	Script to be run each time the volume is changed which (includes setting the volume to "mute")
onwaiting		<i>script</i>	Script to be run when the media has paused but is expected to resume (like when the media pauses to buffer more data)

## Misc Events

Attribute		Value	Description
<u>onerror</u>		<i>script</i>	Fires when an error occurs while loading an external file
<u>onshow</u>		<i>script</i>	Fires when a <menu> element is shown as a context menu
<u>ontoggle</u>		<i>script</i>	Fires when the user opens or closes the <details> element