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HTML DOM addEventListener() Method

☐ Element Object

Example

Attach a click event to a <button> element. When the user clicks on the button, output "Hello World" in a <p> element with id="demo":

```
document.getElementById("myBtn").addEventListener("click", function(){
    document.getElementById("demo").innerHTML = "Hello World";
});
```

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The addEventListener() method attaches an event handler to the specified element.

Tip: Use the removeEventListener() method to remove an event handler that has been attached with the addEventListener() method.

Tip: Use the document.addEventListener() method to attach an event handler to the document.

Browser Support

The numbers in the table specify the first browser version that fully supports the method.

Method					
addEventListener()	1.0	9.0	1.0	1.0	7.0

Note: The addEventListener() method is not supported in Internet Explorer 8 and earlier versions, and Opera 6.0 and earlier versions. However, for these specific browser versions, you can use the **attachEvent()** method to attach event handlers (see "More Examples" below for a cross-browser solution).
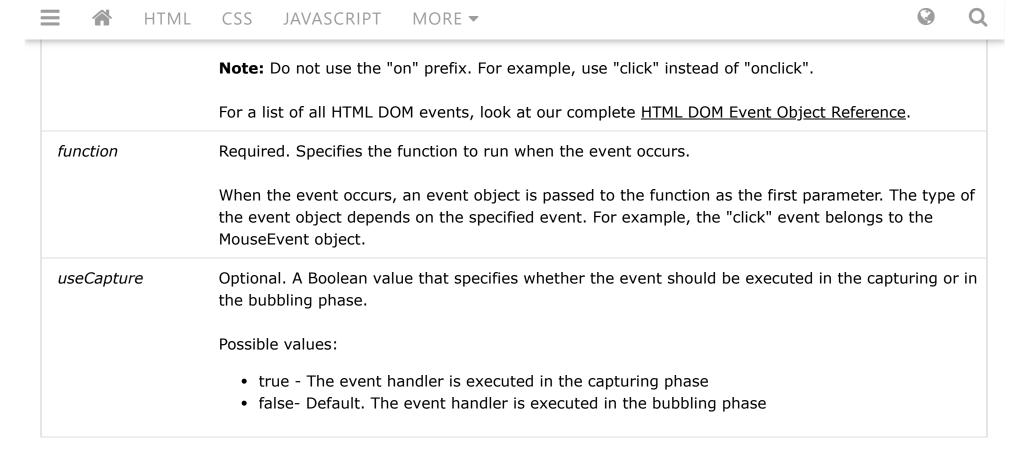
Syntax

```
element.addEventListener(event, function, useCapture)
```

Parameter Values

Parameter	Description

	Note: Do not use the "on" prefix. For example, use "click" instead of "onclick". For a list of all HTML DOM events, look at our complete <u>HTML DOM Event Object Reference</u>.
function	Required. Specifies the function to run when the event occurs. When the event occurs, an event object is passed to the function as the first parameter. The type of the event object depends on the specified event. For example, the "click" event belongs to the MouseEvent object.
useCapture	Optional. A Boolean value that specifies whether the event should be executed in the capturing or in the bubbling phase. Possible values: • true - The event handler is executed in the capturing phase • false- Default. The event handler is executed in the bubbling phase

Technical Details

DOM Version:	DOM Level 2 Events
Return Value:	No return value
Changelog:	The useCapture parameter became optional in Firefox 6 and Opera 11.60 (has always been optional for Chrome, IE and Safari)

More Examples

Example

You can also refer to an external "named" function.

This example demonstrates how to execute a function when a user clicks on a <button> element:

```
document.getElementById("myBtn").addEventListener("click", myFunction);

function myFunction() {
  document.getElementById("demo").innerHTML = "Hello World";
}
```

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Example

You can add many events to the same element, without overwriting existing events.

This example demonstrates how to add two click events on the same <button> element:

```
document.getElementById("myBtn").addEventListener("click", myFunction);
document.getElementById("myBtn").addEventListener("click", someOtherFunction);
```

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You can add events of different types to the same element.

This example demonstrates how to add many events on the same <button> element:

```
document.getElementById("myBtn").addEventListener("mouseover", myFunction);
document.getElementById("myBtn").addEventListener("click", someOtherFunction);
document.getElementById("myBtn").addEventListener("mouseout", someOtherFunction);
```

Try it Yourself »

Example

When passing parameter values, use an "anonymous function" that calls the specified function with the parameters:

```
document.getElementById("myBtn").addEventListener("click", function() {
  myFunction(p1, p2);
});
```

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Example

Change the background color of a <button> element:

```
document.getElementById("myBtn").addEventListener("click", function(){
  this.style.backgroundColor = "red";
```

Example

Using the optional *useCapture* parameter to demonstrate the difference between bubbling and capturing:

```
document.getElementById("myDiv").addEventListener("click", myFunction, true);
```

Example

Using the removeEventListener() method to remove an event handler that has been attached with the addEventListener() method:

```
// Attach an event handler to <div>
document.getElementById("myDIV").addEventListener("mousemove", myFunction);

// Remove the event handler from <div>
document.getElementById("myDIV").removeEventListener("mousemove", myFunction);
```

For browsers that don't support the addEventListener() method, you can use the attachEvent() method.

This example demonstrates a cross-browser solution:

```
var x = document.getElementById("myBtn");
if (x.addEventListener) {                         // For all major browsers, except IE 8 and earlier
  x.addEventListener("click", myFunction);
} else if (x.attachEvent) {                       // For IE 8 and earlier versions
  x.attachEvent("onclick", myFunction);
}
```

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☐ Element Object

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