



As American involvement in Vietnam's civil war escalated, more and more American young men were drafted into the Army and sent to Vietnam.

Sometimes troops on the ground were on patrol when napalm strikes occurred, like the scene depicted in this Associated-Press photograph from 1966.

What is napalm? It's a shorthand way of describing [**na**]phthenic acid and [**pal**m]itic acid. This is a substance, used in warfare, particularly in incendiary (fire) bombs and in flamethrowers.

Napalm is highly flammable (because it is made with petroleum products) and looks like sticky jelly (because it is thickened with special mixtures which resemble soaps). At its website, [Global Security describes napalm](#) with these words:

... a tactical weapon used to remove vegetative cover and instill fear.

It definitely instills fear. Because of its gel-like properties, napalm can stick to its target. Sometimes the target ends-up being human skin or the clothes which a person is wearing. When it's ignited, napalm can burn at temperatures higher than 5,000 degrees Fahrenheit (2,760 Celsius).

Because it clings to whatever it touches, napalm is particularly effective against fortified structures (like bunkers). Military personnel also use it to clear-out tunnels.

Who was responsible for coming-up with the formula for napalm? After World War I, Dr. Louis F. Fieser and his team of scientists found a formula involving aluminum soap:

They created an aluminum soap mixed with naphthenic acid from crude oil and palmitic acid from coconut oil...The new agent, when combined with gasoline, made for a cheap, brutally effective weapon. It also could be shot long distances and was safer for the soldiers using it. (See "[How Napalm Works](#)" at "How Stuff Works.")

Beyond their ability to cause horrific burns, napalm bombs also kill in another way. While removing oxygen from the air, they simultaneously generate carbon monoxide.

How does that happen? Napalm partially combusts oxygen, in the air, which then turns carbon dioxide (CO₂) into carbon monoxide (CO). Breathing carbon monoxide can be deadly for human beings.

Napalm bombs can also cause death in another, unexpected way. They generate so much heat that people have reportedly been boiled in nearby rivers (made extremely hot from the exploded, fire-producing bombs).

Burning napalm produces toxic fumes. When the UK was dealing with a particularly bad case of hoof-and-mouth disease, and many animals had to be killed as a result, Members of Parliament considered the use of napalm to dispose of the animals' remains. That idea was discarded because of the risks:

The chemical reactions from burning napalm are already well understood. Napalm is therefore not being used to burn carcasses, as both forms of napalm available produce very toxic compounds when they burn. (See [Parliamentary Records](#).)

The Allies used napalm bombs near the end of World War II. They [decimated the city of Dresden](#) (in February of 1945) and [Tokyo \(in March of the same year\)](#). Tokyo, then a city of many wooden buildings, would never-again look the same.

American forces also used napalm bombs during [the Korean Conflict](#). This was the last war when the original formulation of napalm was used.

After the Korean War, scientists worked on a new type of napalm (although it is still generally called by the same name). Napalm-B—also known as super-napalm—is as deadly, to its targets, as the original formulation (although it is a bit less-dangerous to people working with it).

Why did the U.S. use napalm in Vietnam? To destroy the places, including dense forests, where Vietcong

guerillas were taking cover.

This image, taken by an AP photographer during 1966, shows what can happen when a napalm strike erupts into a fireball.

Credits:

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See Alignments to State and Common Core standards for this story online at:

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