

# What is Soil Lead

Factsheet #1

Although lead is no longer used in most products found in your home, lead can still be found in many industrial paints used on cars, trucks and ships. Lead is still used inside batteries, electronics, mixed metals, and beyond.<sup>4</sup>

## What is Lead?

- Lead is a naturally occurring metal found in small amounts in soil. Lead can be found at different levels in soil, water, air, and even in your home from human activities.<sup>1</sup>
- Throughout our history, lead has been a popular metal due to its versatility from its low melting point.
- In the early 1900s, doctors discovered that lead is harmful to the health of humans and plants.<sup>1</sup> There are now laws in place limiting the use of lead.<sup>2</sup>
- **Today, lead is the most common pollutant in urban soils.**<sup>3</sup>

## Why is there lead in my garden soil?

The biggest problem with lead in soils is that it doesn't go away.

**Once lead is in soil, it can stay there for hundreds of years.**

Before people found out that lead was dangerous, it was a commonly used material. Lead was used in:<sup>3</sup>

- Paints in homes
- Gasoline
- Water Pipes
- Batteries
- Building Materials
- Factory Processes

Lead-contaminated fill was used in the construction of many home foundations and landscapes. Smoke coming from factories and vehicles using leaded-gasoline released lead into the air.<sup>3</sup> In places near old factories or roads in Greater Portland, the lead in smoke released decades ago may have settled into your soil.<sup>3</sup> If your home was painted with lead paint, the paint could have chipped off your house directly into your soil.<sup>3</sup> **No matter where it came from, all the lead that has entered your soil over the past few hundred years is still there.**

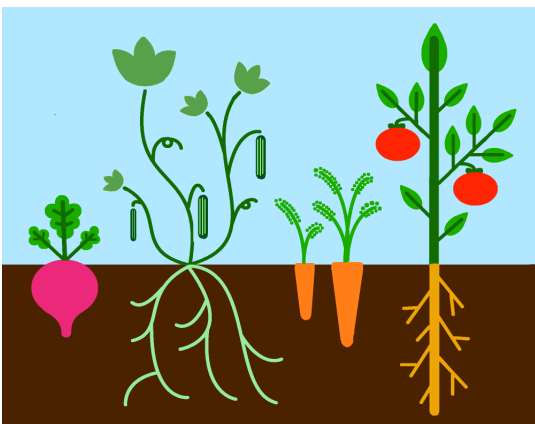
<sup>1</sup> EPA, "Learn about Lead" (<https://www.epa.gov/lead/learn-about-lead>).

<sup>2</sup> EPA, "Lead in Paint, Dust, and Soil," (<https://www.epa.gov/lead/lead-regulations#paint>).

<sup>3</sup> Soil Science Society of America, "Lead" (<https://www.soils.org/discover-soils/soils-in-the-city/soil-contaminants/lead>).

<sup>4</sup> International Lead Association, "Lead Uses—Statistics," (<https://www.ila-lead.org/lead-facts/lead-uses--statistics>).

<sup>5</sup> Portland Press Herald, "The Night Portland Burned," ([specialprojects.pressherald.com/portlands-great-fire/](https://specialprojects.pressherald.com/portlands-great-fire/)) [www.cumberlandswcd.org](http://www.cumberlandswcd.org)



# ما هو رصاص التربة؟

## ما هو الرصاص؟

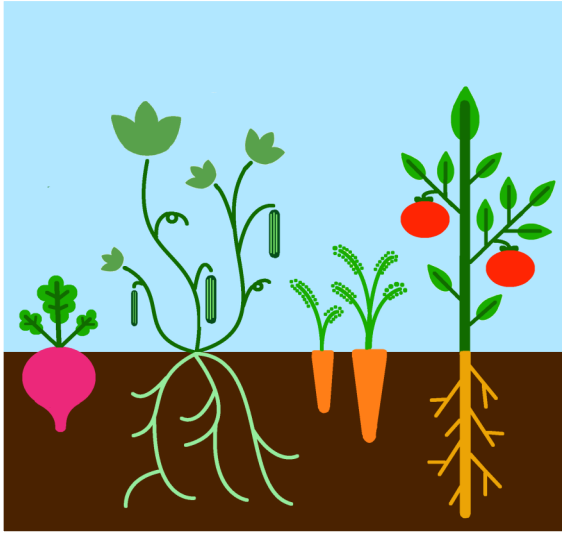
الرصاص معدن طبيعي يوجد بكميات صغيرة في جميع أنحاء العالم. يوجد الرصاص بمستويات منخفضة في التربة والماء والهواء وحتى في منزلك.<sup>1</sup> على مر تاريخنا، كان الرصاص معدنًا شائع الاستخدام بسبب قوته. اكتشف الأطباء في أوائل القرن العشرين أن الرصاص ضار بصحة الإنسان والنباتات. توجد الآن قوانين تحد من استخدام الرصاص.<sup>2</sup> اليوم، الرصاص هو الملوث الأكثر شيوعًا في التربة الحضرية.

## لماذا يوجد رصاص في تربة حديقتي؟

أكبر مشكلة في الرصاص في التربة هي أنه لا يختفي.<sup>3</sup> بمجرد أن يكون الرصاص في التربة، يمكن أن يبقى هناك لمئات السنين. قبل أن يكتشف الناس أن الرصاص خطير، كانت مادة شائعة الاستخدام. تم استخدام الرصاص في:

- طلاء المنزل
- البطاريات
- البنزين
- مواد البناء
- أنابيب المياه
- عمليات المصنع

الدخان القادم من المصانع والمركبات باستخدام البنزين المحتوي على الرصاص يطلق الرصاص في الهواء. في الأماكن القريبة من المصانع القديمة أو الطرق، الرصاص في الدخان الذي صدر قبل عقود ربما استقر في تربتك. إذا كان منزلًا مطليًا بطلاء من الرصاص. فقد يكون تكاسر الطلاء مباشرة في التربة. بغض النظر عن المكان الذي جاء منه، كل الرصاص الذي دخل التربة على مدى بضع مئات من السنوات الماضية لا يزال هناك. على الرغم من أن الرصاص لم يعد يستخدم في العديد من المنتجات الموجودة في منزلك، لا يزال من الممكن العثور عليه في العديد من الطلاء الصناعي المستخدم في السيارات والشاحنات والسفن. الرصاص يستخدم في داخل البطاريات، المعادن المخلوطة، والمزيد.<sup>4</sup>



حريق بورتلاند الكبير في ١٨٦٦

في ١٨٦٦، أحرق الحريق ثلث مدينة بورتلاند وترك وراءه الكثير من الحطام.<sup>5</sup> لتنظيف المدينة وإعادة الاستقرار، قامت المدينة بدفع كميات كبيرة من الأنقاض في منطقة ال Back Cove لتشكيل الأساس لما نعرفه الآن بحبي East Bayside و Bayside. كانت المباني في بورتلاند قبل عام ١٨٦٦ مصنوعة من مواد التي تستخدم الرصاص، وبالتالي فإن الحطام من المباني المحروقة يحتوي على الكثير من الرصاص. إذا كنت تعيش في East Bayside أو Bayside، من المحتمل أن تكون الأرض التي بني عليها منزلك ملوثة بمادة الرصاص من الحطام المتروك بعد الحريق الكبير في عام ١٨٦٦.



## للمزيد من المعلومات، قم بزيارة المواقع الآتية:

<sup>1</sup> EPA, "Learn about Lead" (<https://www.epa.gov/lead/learn-about-lead>).

<sup>2</sup> EPA, "Lead in Paint, Dust, and Soil," (<https://www.epa.gov/lead/lead-regulations#paint>).

<sup>3</sup> Soil Science Society of America, "Lead" (<https://www.soils.org/discover-soils/soils-in-the-city/soil-contaminants/lead>).

<sup>4</sup> International Lead Association, "Lead Uses—Statistics," (<https://www.ila-lead.org/lead-facts/lead-uses--statistics>).

<sup>5</sup> Portland Press Herald, "The Night Portland Burned," ([specialprojects.pressherald.com/portlands-great-fire/](https://specialprojects.pressherald.com/portlands-great-fire/))

# Le plomb dans le sol



## Qu'est-ce que c'est que le plomb?

Le plomb est un métal naturel qui se trouve en petites quantités partout dans le monde. Il existe des traces de plomb dans le sol, l'eau, l'air, et même chez vous.<sup>1</sup> Le plomb était utilisé tout au long de l'histoire au cause de sa force. Au début des années 1900, des médecins ont découvert que le plomb est nuisible à la santé des humains et des plantes.<sup>1</sup> Maintenant, on a des lois qui limitent l'usage de plomb.<sup>2</sup> **Aujourd'hui, le plomb est le polluant le plus courant dans les sols urbains.**<sup>3</sup>

## Why is there Lead in my garden soil?

Le plus grand problème de plomb dans le sol c'est qu'il ne disparaît pas.<sup>3</sup> **Le plomb peut rester dans le sol pendant des centaines d'années.**<sup>3</sup> Avant qu'on a découvert que le plomb est dangereux, c'était un matériau couramment utilisé. Le plomb était utilisé dans:<sup>3</sup>

- La peinture pour la maison
- Les piles
- L'essence
- Les matériaux de construction
- Les tuyaux d'eau
- Les processus industriels

Les usines et les véhicules qui utilisaient de l'essence au plomb émettaient du plomb dans l'air.<sup>3</sup> Le plomb émis dans la fumée il y a quelques décennies aurait pu se déposer sur le sol près des anciens usines ou des rues.<sup>3</sup> Si votre maison était peinte avec la peinture au plomb, la peinture aurait pu s'écailler et entrer dans le sol.<sup>3</sup> **Peu importe d'où il est venu, le plomb qui entrait dans le sol au cours des cent dernières années existe encore.**



Même si on n'utilise plus le plomb dans beaucoup des produits dans votre maison, on peut trouver le plomb dans plusieurs peintures industrielles utilisé pour les voitures, les camions, et les bateaux. Le plomb est aussi utilisé dans les piles, les électroniques, les métaux mélangés, et plus.<sup>4</sup>

### Le Grand Incendie de Portland en 1866

En 1866, un grand incendie a ravagé un tiers de la cité de Portland et il a laissé beaucoup de débris.<sup>5</sup> Les peuples de Portland ont enlevé les grand quantités des décombres et les ont poussé dans le Back Cove. Les décombres ont formé la fondation de ce que nous appelons aujourd'hui les quartiers East Bayside et Bayside. Avant 1866 les meubles de Portland ont été construit des matériaux qui utilisait de plomb, donc le débris des meubles brûlés contient beaucoup de plomb. **Si vous habitez dans les quartiers East Bayside ou Bayside, la terre sous votre maison est probablement contaminée par le plomb dans le débris du grand incendie de 1866!**



## For more information:

<sup>1</sup> EPA, "Learn about Lead" (<https://www.epa.gov/lead/learn-about-lead>).

<sup>2</sup> EPA, "Lead in Paint, Dust, and Soil," (<https://www.epa.gov/lead/lead-regulations#paint>).

<sup>3</sup> Soil Science Society of America, "Lead" (<https://www.soils.org/discover-soils/soils-in-the-city/soil-contaminants/lead>).

<sup>4</sup> International Lead Association, "Lead Uses—Statistics," (<https://www.ila-lead.org/lead-facts/lead-uses--statistics>).

<sup>5</sup> Portland Press Herald, "The Night Portland Burned," ([specialprojects.pressherald.com/portlands-great-fire/](https://specialprojects.pressherald.com/portlands-great-fire/))



# Soil Lead Elingi Koloba Nini?



## Lead elingi koloba nini?

Soil lead ezali mabele oyo eza na lead na kati Lead ezali metal to ebende naturel ezwami na biteni mike mike mokili mobimba.<sup>1</sup> Lead ezwami na se ya mabele, na mayi, mupepe pe na kati ya ndako nayo. Na histoire na biso, lead eyebani mingi pona makasi na yango.<sup>1</sup> Na ebandeli ya ba mbula 1900s, minganga bamonaki ete lead ezali mabe po na sante ya mutu pe na nyonso ebotamaka na mabele. Sika mibeko ya l'Etat esili ko limiter misala ya lead.<sup>2</sup> **Lelo, lead ezali bosoto mingi na mabele Nzinga Nzinga ya ba mboka.**<sup>3</sup>

## Po na nini lead ezali na mabele ya jardin na ngayi?

Probleme monene ya lead na mabele ezali que ekokende esika te.<sup>3</sup> **Tango lead ezali na mabele, ekotikala na kati pona na ba mbula kama na kama.** Liboso batu bayeba lead ezali mabe makasi, ezalaki mingi kozala utilise na ba materiels. Lead ezalaki kosala na kati ya.<sup>3</sup>

- Langi ya kopakola na ba ndako
- Piles
- Na essence
- Materiels de construction
- Na ba tuyaux ya mayi
- Processus d'usine

Milinga oyo eza kobimela na ba usines, na mituka oyo esalaka na essence ya lead na kati, epanzaka lead na mupepe.<sup>3</sup> Na bisika oyo ezali pene ya ba usines ya kala to ba balabala na Portland, lead na milinga oyo ebimaki ba mbula eleka, ekoki kozala evanda na mabele na bino.<sup>3</sup> Soki ndako nayo epakolamaki na langi ya lead, langi wana ekoki kozala ebandaki kolongwa ndambu ndambu na ndako nayo ti na kati ya mabele nayo.<sup>3</sup> **Ata ndenge nini, esika nyonso oyo ewutaki, lead nyonso oyo ekotaka mabele nayo uta mbula na ba mbula, ezali kaka wana.**



Ata soki lead ezali kozwama lisusu te na ba produits na ndako nayo, lead ekoki kozwama kaka na ba usines ebele ya langi oyo basalelaka na mituka, camions na masuwa. Basalelaka lead na kati ya ba piles, appareils électroniques, mélange ya bibende pe biloko mingi.<sup>4</sup>

### Compagnie Monene ya Moto ya 1866

Na mbula ya 1866, moto mingi epelaki na 1/3 ya cite ya Portland, etikaka na sima bosoto mingi.<sup>5</sup> Po na kopetola cite pe kobikisa cite na likama yango, batindikaki ba decombres ebele na esika tobengi Back Cove pona kosala fondation ya ba quartiers oyo toyebi lelo na kombo ya East Bayside pe Bayside. Ba buildings ya Portland liboso ya 1866 etongamaki na materiels oyo ezalaki na lead, yango ba decombres ya ba buildings ezikaka etondakalead mingi. **Soki ovandi na East Bayside to Bayside, nse ya ndako nayo esika etongami, ezali contamine na lead ya bosoto ya moto epelaka na 1866!**



## Po na information misusu:

<sup>1</sup> EPA, "Learn about Lead" (<https://www.epa.gov/lead/learn-about-lead>).

<sup>2</sup> EPA, "Lead in Paint, Dust, and Soil," (<https://www.epa.gov/lead/lead-regulations#paint>).

<sup>3</sup> Soil Science Society of America, "Lead" (<https://www.soils.org/discover-soils/soils-in-the-city/soil-contaminants/lead>).

<sup>4</sup> International Lead Association, "Lead Uses—Statistics," (<https://www.ila-lead.org/lead-facts/lead-uses--statistics>).

<sup>5</sup> Portland Press Herald, "The Night Portland Burned," ([specialprojects.pressherald.com/portlands-great-fire/](https://specialprojects.pressherald.com/portlands-great-fire/))

# O que é chumbo do solo?



## O que é o chumbo?

O chumbo é um metal natural encontrado em pequenas quantidades em todo o mundo. O chumbo é encontrado em baixos níveis no solo, na água, no ar e até mesmo na tua casa.<sup>1</sup> Ao longo de nossa história, o chumbo tem sido um metal popular, utilizado devido à sua força. No início dos anos 1900, os médicos descobriram que o chumbo é prejudicial à saúde de seres humanos e plantas.<sup>1</sup> Agora, existem leis que limitam o uso do chumbo.<sup>2</sup> **Atualmente, o chumbo é o poluente mais comum em solos urbanos.**<sup>3</sup>

## Por que existe chumbo no solo do meu jardim?

O maior problema do chumbo nos solos é que não desaparece do solo.<sup>3</sup> **Uma vez que o chumbo esteja no solo, pode permanecer lá por centenas de anos.**<sup>3</sup> Antes de se descobrir o seu perigo, o chumbo era um material comumente usado. O chumbo era utilizado em:<sup>3</sup>

- Tintas em casas
- Gasolina
- Tubos de água
- Baterias
- Materiais de construção
- Processos de fábrica

A fumaça proveniente de fábricas e veículos que utilizavam gasolina com chumbo liberava chumbo no ar.<sup>3</sup> Em Portland nos locais próximos a antigas fábricas ou estradas, o chumbo liberado décadas atrás pode ter se instalado no solo.<sup>3</sup> Se a tua casa fosse pintada com tinta de chumbo, a tinta poderia ter (quebrado) lascado a tua casa diretamente no solo.<sup>3</sup> **Não importa de onde veio, todo o chumbo que entrou no teu solo nas últimas centenas de anos ainda está lá.**



Embora o chumbo não seja mais usado em muitos produtos encontrados na tua casa, o chumbo ainda pode ser encontrado em muitas tintas industriais usadas em carros, caminhões e navios. O chumbo é utilizado dentro de baterias, materiais eletrônicos, metais mistos e outros.<sup>4</sup>

### O Grande Incêndio de Portland de 1866

Em 1866, o Grande Incêndio queimou um terço da Cidade de Portland, deixando para trás muitos destroços.<sup>5</sup> Para limpar a cidade e se recuperar da tragédia, empurrou-se grande quantidade dos destroços para Back Cove para formar a base do que hoje conhecemos como os bairros de East Bayside e Bayside. Antes de 1866 os edifícios em Portland eram feitos de materiais que utilizavam chumbo, então os destroços dos prédios queimados continha muito chumbo. Se você mora em **East Bayside ou Bayside, o terreno em que a tua casa está construída provavelmente está contaminado pelo chumbo dos destroços deixados após o Grande Incêndio de 1866!**



## Para obter mais informações:

<sup>1</sup> EPA, "Learn about Lead" (<https://www.epa.gov/lead/learn-about-lead>).

<sup>2</sup> EPA, "Lead in Paint, Dust, and Soil," (<https://www.epa.gov/lead/lead-regulations#paint>).

<sup>3</sup> Soil Science Society of America, "Lead" (<https://www.soils.org/discover-soils/soils-in-the-city/soil-contaminants/lead>).

<sup>4</sup> International Lead Association, "Lead Uses—Statistics," (<https://www.ila-lead.org/lead-facts/lead-uses--statistics>).

<sup>5</sup> Portland Press Herald, "The Night Portland Burned," ([specialprojects.pressherald.com/portlands-great-fire/](https://specialprojects.pressherald.com/portlands-great-fire/))