

Signs of Subterranean Termite Infestation

8-10 minutes

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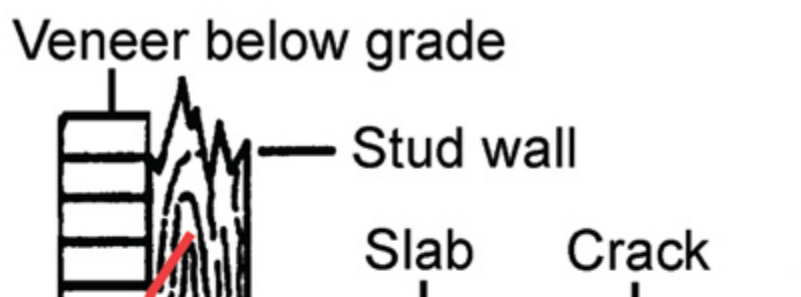
Introduction

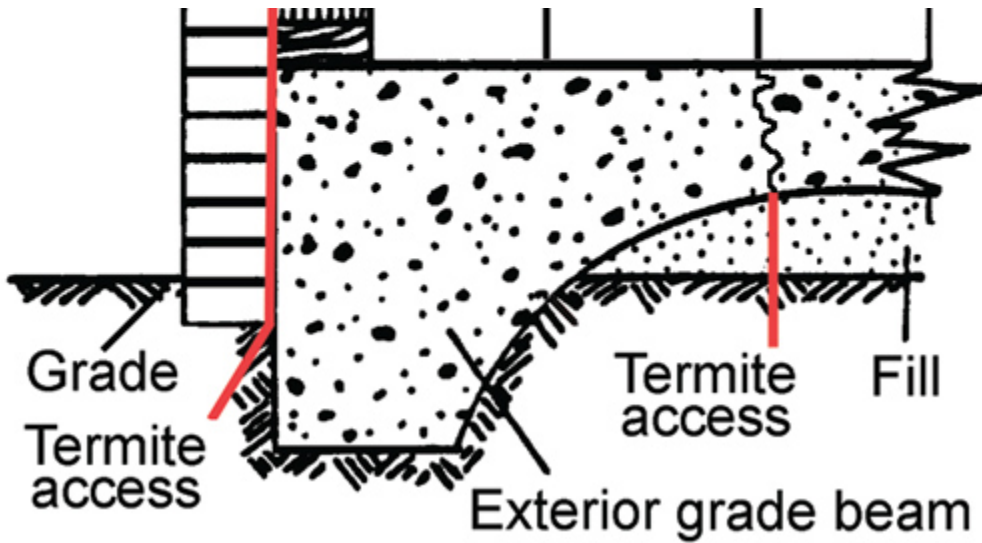
Subterranean termites have a cryptobiotic or “hidden” lifestyle. This means that they are always hidden from our view either beneath the surface of the soil, beneath the surface of the wood, or in their mud tunnels. This cryptobiotic nature contributes to their success in invading human structures. The termites enter our buildings from beneath the soil surface and forage within the wood. We usually do not detect their presence until damage becomes evident or termite swarming takes place. Often we have no idea how the termites got into our home. This can make it very difficult to control them. The following are descriptions of how termites typically invade structures, building practices that encourage termite attack, and how you can detect the signs of termite infestation.

Usual Point of Entry

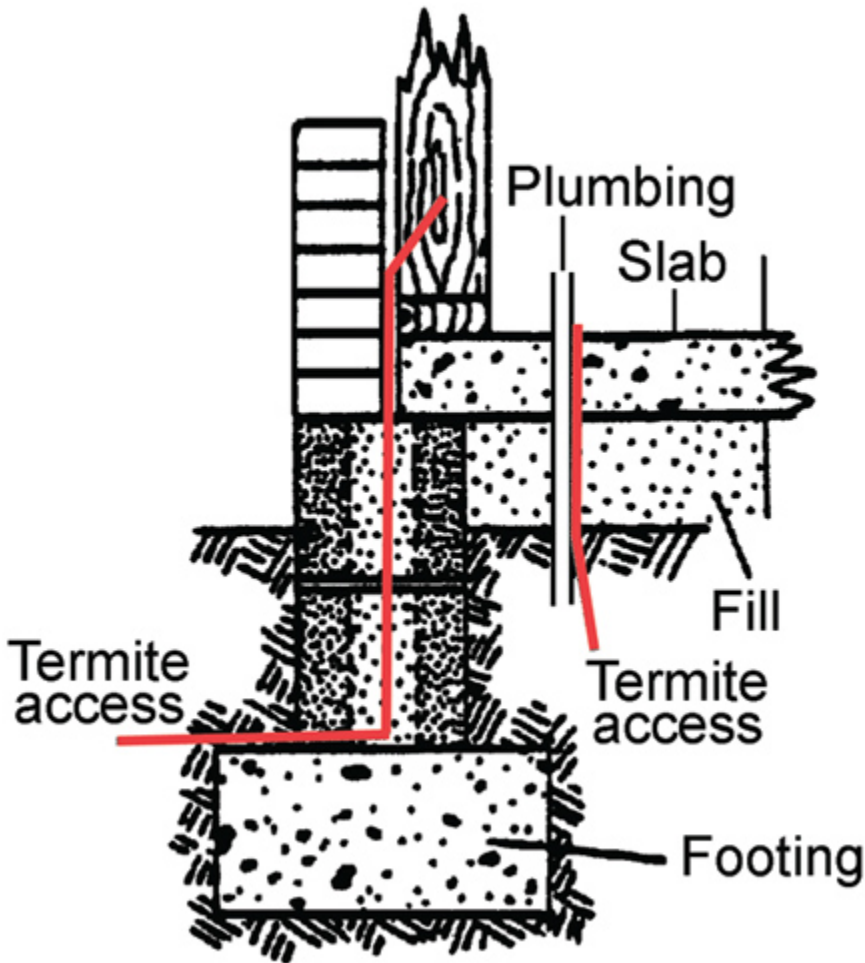
Subterranean termites usually invade a structure from the soil along the foundation. They commonly enter through cracks in the slab, utility conduits, expansion joints, and plumbing connections. A common problem in Virginia is subterranean termites entering a structure between the foundation and brick veneer, stucco or expandable foam insulation (EFIS) that is below the grade level. This is a major problem because there is no external evidence of the termite presence until the damage becomes obvious. Also, wood structures in direct contact with the ground such as decks or porches invite termite entrance.

The source of most of subterranean termite infestations is a colony living in the soil. However, some infestations originate from above ground (aerial infestations). Above ground infestations occur either when a termite king and queen begin a new nest within a structure or when foraging termite workers become isolated indoors and cannot return to the parent colony. Such infestations are rare in most of Virginia because they require extremely moist conditions year round. However, homes with flat roofs or chronic leaks are sometimes at risk because enough moisture is retained within the structure to allow the termites to become established. The constant moisture allows the termite colony to survive with no connection to the soil. In such cases the structural moisture problems may be as damaging to the home as the termite activity.

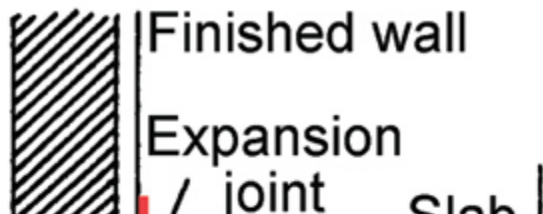


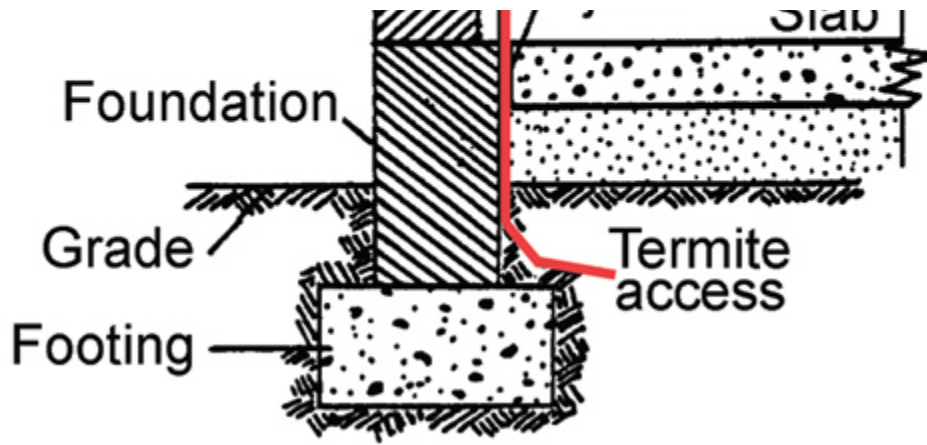


Monolithic slab with veneer



Supported slab with veneer





Floating slab

Indicators of Infestation

A subterranean termite infestation is usually recognized by the following 3 indicators:

Mud tubes. The termite foraging tubes extend from the ground to the infested wood. The tubes provide shelter for the foraging termites. The tubes are flattened and muddy looking in appearance. Most are about the width of a pencil. They are most obvious when they extend over concrete foundations and other exposed surfaces. However, the tubes are often less visible, running along cracks, underneath flooring, or behind siding and baseboards.





Mud Tubes

Swarmers. Winged termites emerging indoors or outside from swarming tubes immediately adjacent to the structure are often the first sign of a subterranean infestation. Swarming termites are attracted to light. Therefore, swarmers indoors are often found around lighting fixtures, windows, doors and vents. Also, large numbers of discarded termite wings on windowsills, floors or in spider webs are a sure sign of infestation.



Winged termites

Wood damage. A common indication of subterranean infestation is the presence of dark areas or blisters in wood flooring. However, subterranean termite damage can go unnoticed because the termites only eat the spring wood leaving the grain and exterior surface intact. However, the galleries can be detected by tapping the wood every few inches with the handle of a screwdriver. The damaged wood sounds hollow and the screwdriver may even break through the wood into the galleries. If the galleries are active the worker termites will be observed inside.





Wood damage

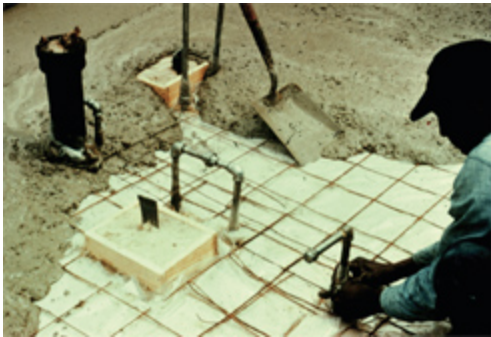
Problematic Construction Practices

Several common construction practices contribute to subterranean termite infestation either by providing the termites with access into the structure or by creating moisture conditions ideal for termite colonization. The following are examples of construction and landscape practices that lead to subterranean termite infestation:

1. Wood to soil contact. Provides termites with a direct highway from the colony in the soil to the structural wood.
2. Form boards not removed after construction. Form boards, grade stakes, tub trap boxes, and spacers left in the slab allow termites to eat their way into the structure.
3. Wooden debris left inside CMUs. Filling the cavities in concrete masonry units with wood scraps allows termites to forage through the concrete voids.
4. Wood refuse buried under the slab or stoop. Burying construction debris under a porch, stoop or slab causes large numbers of termites to congregate directly adjacent or under the structure.
5. Stucco below grade. Stucco, brick veneer or EFIS below grade provide the termites with hidden access into the structure. The infestation will typically go undiscovered until damage becomes obvious.
6. Improper drainage. Some structures are built in a depression. Others may have insufficiently extended eaves, or have short downspouts. These characteristics will result in moisture

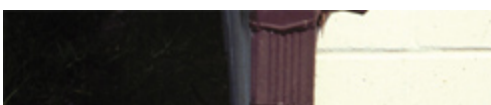
accumulation at the base of the foundation. This moisture provides an ideal habitat for subterranean termites.

7. Landscaping. Landscaping, including the spreading of mulch or gravel against the foundation, causes moisture to be retained at the base of the structure. Because moist soil is prime termite habitat, the area immediately adjacent to the foundation should be kept as dry as possible so that termites will prefer to live and forage elsewhere.



Form boards not removed after the slab is poured.

In the United States subterranean termite infestation amounts to billions of dollars in damage each year. It is therefore very important to have your home thoroughly inspected for termite activity if you observe any of the signs of infestation. Also, when purchasing a home most mortgage companies will require a Wood Destroying Organism (WDO) inspection and a written report indicating any termite activity or damage. Be sure to have the home inspected by a pest control operator who has been certified by the Virginia Pest Management Association (VPMA) for WDO inspections. Also, schedule the inspection for a time when you can be present. This way you can have the operator point out conditions around your home that are conducive to termite infestation and tell you how to correct them.





Short down spout causes improper drainage at foundation.

References

- Potter, M. F. Termites, pp. 232-333. In S. A Hedges and D. Moreland [eds.], *Mallis Handbook of Pest Control*, eighth edition. Mallis Handbook and Technical Training Company. 1997.
- Koehler, P. G., D. E. Short, and W. H. Kern. *Pests In and Around the Florida Home*. University of Florida Cooperative Extension Service, IFAS No. SP 134. Gainesville FL. 1998.

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