Lead Poisoning Prevention

Where is Lead Found?

- **Paint:** Lead can be found in paint that was made before 1978. This paint can be on any painted surface in your home, like doors, windows, and porches.
- **Dust:** Lead dust in the home is comes from lead painted surfaces that are chipping and peeling. Sanding and scraping old paint when repainting or remodeling can also cause a lead dust problem.
- **Soil:** Old paint that has fallen off the outside of your house onto the ground may have left lead in the soil.
- Lead can also be found in ceramic dishes, crystal, food cans from outside the U.S., water pipes, solder and fittings, and some ethnic cosmetics and home remedies.
- Some jobs and hobbies can expose children and adults to lead. Some examples are painters, house remodelers, plumbers, mechanics, bridge workers, making jewelry, ceramic/pottery or stained glass, and going to indoor firing ranges.

Is Your Child At Risk For Lead Poisoning?

If you answer yes to any of these questions you may want to have your child tested, even if your child is older.

- Does your child live in or often visit a building built before 1960?
- Does your child live in or often visit a building built before 1978 that is being or was just repaired or remodeled?
- Does your child live in or often visit a building that has peeling or chipping paint?
- Does your child live with an adult or often visit an adult whose job or hobby exposes them to lead?
- Does your family eat or drink from dishes made outside the U.S.?
- Does your family use home remedies?

How does a child get lead poisoned?

- Lead poisoning usually happens when children ingest (eat) dust that has lead in it. Children may also eat chips of lead paint or soil that has lead in it.

What Does Lead Do to the Body?

- No amount of lead in the body is safe. The damage lead can cause is forever! Lead can damage the brain. It can cause growth problems, hearing loss, and learning problems.
- Many children do not show signs of lead poisoning. Some signs of high levels of lead poisoning are the same as other childhood illnesses, like the common cold or teething.
What Does Lead Do to the Body? (continued)

- If a pregnant woman is around lead, she and her unborn child may become lead poisoned. Lead can cause lasting damage to the mother and her baby.

How Can You Reduce The Risk?
Replace, fix or manage all lead hazards in a lead safe way.

Steps you can take to prevent children from being lead poisoned:
- Keep children and pregnant women away from all lead hazards.
- Clean up lead dust and paint chips by wet wiping window sills and window wells or wet mopping floors. Do NOT dry sweep or vacuum, this will spread the lead dust.
- Block places with peeling or chipping paint. Do not use windows that have chipping paint.
- Move your child’s bedroom or play area to a room that has no peeling or chipping paint.
- Place washable mats inside and outside entry doors.
- Have people remove their shoes before coming in the home.
- Do not let your child (or pet) play in dirt.
- Wash and dry your child’s hands, toys and pacifiers often. Wash and dry your child’s hands before playing, eating, and bedtime.
- Use cold water from the tap for drinking, cooking and making formula. Let water run for 1-2 minutes before using.
- Give your child healthy meals and snacks to eat. An empty stomach takes in lead faster than a full stomach.

Steps adults can take to help prevent themselves or children from becoming lead poisoned from their job or hobby:
- Don’t eat, drink or smoke in your work/hobby area.
- Wash your hands and face before eating, smoking or drinking.
- Wear protective clothing (such as disposable gloves, hat, and shoe covers) when you work with lead. Use a NIOSH-approved respirator.
- Shower, wash your hair, and change into clean clothes and shoes before you leave the work area. Leaving dust on your clothes can contaminate your home and car.
- Put your work clothes and shoes in sealed plastic bags.
- Wash work clothes in a different load than the family’s laundry.

Does your child need to be tested for lead poisoning?
- Yes, all children, at about ages one and two, must be tested for lead poisoning...it’s the law!
- Blood tests will tell how much lead is in your child’s blood at the time of the test. If the level is high, your child will need more testing.
- If your child is at risk at other ages, have your child tested at those times too.

Connecticut Lead and Healthy Homes Program
(860) 509-7299
www.ct.gov/dph/lead
www.ct.gov/dph/healthyhomes
Eating Right Helps Fight Lead Poisoning

Lead tricks the body into thinking it is iron, calcium or zinc. Eating healthy can help decrease the lead from staying in the body.

Don't let your child go through the day on an empty stomach!

Five Basic Food Groups

- Breads, cereals and grains
- Vegetables
- Fruit
- Milk and milk products
- Meat, chicken, fish, nuts, and beans

Foods Rich in Calcium

- Milk
- Yogurt
- Cheese (for snacks, in cooking such as macaroni and cheese, pizza, tortillas, vegetables)
- Foods made of milk (pudding, soup, ice cream, custard)
- Sardines or canned salmon (with bones)
- Green vegetables (kale, collard greens, broccoli)

Foods Rich in Zinc

- Chicken or turkey
- Lean meat
- Fish
- Milk and cheese
- Clams, oysters, mussels, crab
- Dried beans and lentils
- Eggs
Foods Rich in Iron

- Lean red meat, chicken, turkey and fish
- Iron-fortified hot and cold cereals
- Clams, oysters or mussels (use canned to make soup or sauce for pasta)
- Dark green leafy vegetables
- Dried beans, split peas, and other beans (pinto, red, navy, kidney, garbanzo)
- Eggs
- Dried fruit

The iron in vegetables, grains, beans, nuts and eggs may be made more usable to the body when you eat a food high in Vitamin C at the same meal. Oranges, grapefruit, strawberries, cantaloupe, green peppers, cauliflower, broccoli and potatoes are some foods high in Vitamin C.

Healthy Tips:

- Don’t fry foods. Bake or broil them.
- Try not to eat high fat foods. When you do eat them, eat small portions.
- Vitamin C helps your body absorb iron.
- Children under the age of 2 should have whole milk after they no longer drink formula or breast milk. Most children 2 and older can have lower fat milk. Children with milk allergies can have tofu, leafy green vegetables, sardines, or canned salmon for their calcium needs.
- Younger children need smaller servings than older children or adults. More active people need larger numbers of servings from each of the 5 food groups.
This document has been prepared by the Connecticut Department of Public Health (DPH) to assist Local Health Departments in providing applicable excerpts of lead abatement laws and regulations to parents or guardians of children with reportable blood lead levels ≥ 10µg/dl.

The text below is not a complete version of the Connecticut General Statutes relating to lead or the Regulations of Connecticut State Agencies (RCSA) - Lead Poisoning Prevention and Control Regulations. The excerpts below may apply to you for addressing the elevated blood lead level of your child. If you want to review a full copy of the Connecticut General Statutes relating to lead or the Connecticut Department of Public Health Lead Poisoning Prevention and Control Regulations please refer to the DPH website at: [www.ct.gov/dph/lead](http://www.ct.gov/dph/lead).

**Connecticut General Statutes (CGS)**

<table>
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<tr>
<th>CGS Sec. 19a-110. (Formerly Sec. 19-65e). Report of lead poisoning. Availability of information regarding lead poisoning.</th>
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<tr>
<td>(a) Not later than forty-eight hours after receiving or completing a report of a person found to have a level of lead in the blood equal to or greater than ten micrograms per deciliter of blood or any other abnormal body burden of lead, each institution licensed under sections 19a-490 to 19a-503, inclusive, and each clinical laboratory licensed under section 19a-30 shall report to (1) the Commissioner of Public Health, and to the director of health of the town, city or borough in which the person resides: (A) The name, full residence address, date of birth, gender, race and ethnicity of each person found to have a level of lead in the blood equal to or greater than ten micrograms per deciliter of blood or any other abnormal body burden of lead; (B) the name, address and telephone number of the health care provider who ordered the test; (C) the sample collection date, analysis date, type and blood lead analysis result; and (D) such other information as the commissioner may require, and (2) the health care provider who ordered the test, the results of the test. With respect to a child under three years of age, not later than seventy-two hours after the provider receives such results, the provider shall make reasonable efforts to notify the parent or guardian of the child of the blood lead analysis results. Any institution or laboratory making an accurate report in good faith shall not be liable for the act of disclosing said report to the commissioner or to the director of health. The commissioner, after consultation with the Chief Information Officer of the Department of Information Technology, shall determine the method and format of transmission of data contained in said report.</td>
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<td>(d) The director of health of the town, city or borough shall provide or cause to be provided, to the parent or guardian of a child reported, pursuant to subsection (a) of this section, with information describing the dangers of lead poisoning, precautions to reduce the risk of lead poisoning, information about potential eligibility for services for children from birth to three years of age pursuant to sections 17a-248 to 17a-248g, inclusive, and laws and regulations concerning lead abatement. Said information shall be developed by the Department of Public Health and provided to each local and district director of health. With respect to the child reported, the director shall conduct an on-site inspection to identify the source of the lead causing a confirmed venous blood lead level equal to or greater than fifteen micrograms per deciliter but less than twenty micrograms per deciliter in two tests taken at least three months apart and order remediation of such sources by the appropriate persons responsible for the conditions at such source. On and after January 1, 2012, if one per cent or more of children in this state under the age of six report blood lead levels equal to or greater than ten micrograms per deciliter, the director shall conduct such on-site inspection and order such remediation for any child having a confirmed venous blood lead level equal to or greater than ten micrograms per deciliter in two tests taken at least three months apart.</td>
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Explanation: Section (a) explains that 1) the lab is required to report your child’s elevated blood lead level to the State Department of Public Health and the local health department, and 2) your medical provider is required to notify you of your child’s elevated blood lead level. Section (d) explains that 1) the local health department must give lead poisoning prevention educational information to the parents (you) of a child with an elevated blood lead level and 2) the local health department is required to perform a lead inspection of your home or apartment if your child has two blood tests (from the vein) with the result of 15 micrograms per deciliter (µg/dl) or higher taken three months apart.

Upon receipt of each report of confirmed venous blood lead level equal to or greater than twenty micrograms per deciliter of blood, the local director of health shall make or cause to be made an epidemiological investigation of the source of the lead causing the increased lead level or abnormal body burden and shall order action to be taken by the appropriate person or persons responsible for the condition or conditions which brought about such lead poisoning as may be necessary to prevent further exposure of persons to such poisoning. In the case of any residential unit where such action will not result in removal of the hazard within a reasonable time, the local director of health shall utilize such community resources as are available to effect relocation of any family occupying such unit. The local director of health may permit occupancy in said residential unit during abatement if, in his judgment, occupancy would not threaten the health and well being of the occupants. The local director of health shall, within thirty (30) days of the conclusion of his investigation, report to the commissioner of public health the result of such investigation and the action taken to insure against further lead poisoning from the same source, including any measures taken to effect relocation of families. Such report shall include information relevant to the identification and location of the source of lead poisoning and such other information as the commissioner may require pursuant to regulations adopted in accordance with the provisions of chapter 54. The commissioner shall maintain comprehensive records of all reports submitted pursuant to this section and section 19a-110. Such records shall be geographically indexed in order to determine the location of areas of relatively high incidence of lead poisoning. The commissioner shall prepare a quarterly summary of such records which he shall keep on file and release upon request. The commissioner shall establish, in conjunction with recognized professional medical groups, guidelines consistent with the National Centers for Disease Control for assessment of the risk of lead poisoning, screening for lead poisoning and treatment and follow-up care of individuals including children with lead poisoning, women who are pregnant and women who are planning pregnancy. Nothing in this section shall be construed to prohibit a local building official from requiring abatement of sources of lead.

Explanation: This section explains that if your child has a venous (from the vein) blood lead level of 20 micrograms per deciliter (μg/dL), the local health department must perform a lead inspection in your home or apartment. The local health department will also fill out a questionnaire (epidemiological investigation form) with you to find out more about your child and his/her habits. If lead hazards are found then the local health department will order the property owner to address the hazards. If the local health department determines that the hazards will not be fixed in a timely manner they will assist in relocating you and your family. The local health department will also determine if it is safe for you and your family to stay in your home/apartment during lead abatement. The local health department is then responsible for submitting all investigation findings to the State Department of Public Health.

Sec. 19a-111c. Abatement of lead in dwellings. List of encapsulant products. Regulations.
(a) The owner of any dwelling in which the paint, plaster or other material is found to contain toxic levels of lead and in which children under the age of six reside, shall abate, remediate or manage such dangerous materials consistent with regulations adopted pursuant to this section. The Commissioner of Public Health shall adopt regulations, in accordance with chapter 54, to establish requirements and procedures for testing, remediation, abatement and management of materials containing toxic levels of lead. For the purposes of this section, "remediation" means the use of interim controls, including, but not limited to, paint stabilization, spot paint repair, dust control, specialized cleaning and covering of soil with mulch.
(b) The commissioner shall authorize the use of any liquid, cementitious or flexible lead encapsulant product which complies with an appropriate standard for such products developed by the American Society for Testing and Materials or similar testing organization acceptable to the commissioner for the abatement and remediation of lead hazards. The commissioner shall maintain a list of all such approved lead encapsulant products that may be used in this state for the abatement and remediation of lead hazards.

Explanation: Section (a) explains that if toxic levels of lead are found in a home/apartment where a child under the age of six lives it must be abated or remediated according to the regulations. Section (b) explains that the State health department approves encapsulant products and these are the only ones that can be used for a lead abatement project.
19a-111-2 Applicability of regulations
(a) When a child resides in a dwelling unit all defective lead-based surfaces shall be abated. A property owner may not avoid abatement by taking eviction action against a family with a child.

(b) When a child resides in a dwelling all defective exterior surfaces and all defective surfaces in common areas containing toxic levels of lead shall be abated.

(c) When a child has an elevated blood lead level then abatement shall include all lead-based chewable surfaces whether or not that surface is defective and all lead-based movable parts of windows and surfaces that rub against movable parts of windows.

(d) When a child resides in a dwelling requiring lead abatement, interior dust, drinking water and exterior soil shall be assessed. When soil or sand areas that are not covered by grass, sod, other live ground covers, wood chips, gravel, artificial turf, or similar covering are found to contain lead concentrations in excess of 400 parts per million, such bare soil or sand areas shall be abated. When lead dust hazards are found to be a source or a potential source of elevated blood lead in a child, lead dust shall be reduced to a safe level using appropriate cleaning methods. When lead in drinking water is determined to be a source or potential source of elevated blood lead in a child, appropriate remedial action approved by the local director of health shall be implemented.

(e) Intact surfaces containing toxic levels of lead except as noted in section 19a-111-(c) of regulations of Connecticut State Agencies are not required to be abated by these regulations, however, when a child resides in a dwelling the owner shall have a lead management plan written within sixty (60) days of receipt of inspection results. The plan shall be implemented and kept by the owner and transferred with ownership upon transfer of title. The management plan shall identify the location of intact lead surfaces and describe how these intact surfaces will be monitored on a regular basis by the owner to ensure that if they become defective, the surfaces will be identified and abated. The plan must be submitted to the local director of health or the commissioner upon request.

Explanation: These sections explain when the Regulations apply and what needs to be abated (fixed) by the property owner.

RCSA 19a-111-3 Inspections, reports and notifications
(c) Inspection priorities - Code enforcement agencies shall carry out inspections according to the following priorities:

(1) Elevated blood lead level - As part of an epidemiological investigation of a child's elevated blood lead level, dwelling units in which the child resides shall be inspected for toxic levels of lead by the local director of health. This epidemiological investigation shall begin within five (5) working days after notification of the local director of health by the child's physician, hospital, clinic or by the state lead poisoning prevention program and be completed as expeditiously as possible.

(2) Other dwellings - Inspections shall begin within thirty (30) working days and be completed as expeditiously as possible in all dwelling units in which a child resides in the same building as those identified under section 19a-111-3(c)(1) of regulations of Connecticut State Agencies.

Explanation: Section (1) explains that the home of a child with a blood lead level of 20µg/dL must be inspected by the local health department. Section (2) explains that other dwelling units/apartments (in the building) in which children under the age of six live must be inspected by the local health department.

RCSA 19a-111-4 Abatement of toxic levels of lead
(b) Notice to residents - Prior to beginning a lead abatement project, the owner shall give the affected premises or dwelling unit residents a minimum of five (5) working days written notice of the date the abatement will begin. This notice shall inform the residents of their rights and responsibilities in accordance with general statutes section 19a-111 and sections 19a-111-1 through 19a-111-11 of the regulations of Connecticut State Agencies and state which surfaces or soil areas shall be abated.

Explanation: Section (b) explains that the property owner must provide the tenant (you if you are renting) with written notice at least 5 days before the start of abatement.
(c) **Methods of abatement** - The owner of a dwelling is responsible for proper abatement of toxic levels of lead in dwelling units where a child resides. All defective paint, plaster or other material containing toxic levels of lead on both interior and exterior surfaces and soil areas and fixtures shall be adequately abated by proper preparation, containment, abatement, clean-up, and waste disposal.

**Explanation:** Section (c) explains that the property owner is responsible for abating (fixing) the lead hazards.

(1) **Preparation prior to abatement**

(B) **Packing residents' belongings** - The residents shall pack their belongings in easily handled containers. The owner shall have these belongings moved from the abatement area to a secure area where the residents can have access to their belongings on a daily basis. Belongings must be moved unless abatement methods of replacement or encapsulation are used in a limited area and very little dust is expected to be generated and the abatement plan specifies that the belongings will remain in the abatement area.

(C) **Covering residents' belongings** - The abatement contractor shall ensure that all permanent fixtures are covered with 6-mil polyethylene sheeting and sealed with duct tape.

**Explanation:** Section 1 (B) explains that the tenant/renter must pack their belongings and the property owner is responsible for moving these belongings so the tenant/renter can use them as needed during the abatement. Section (C) explains that the property owner must cover objects in the home/apartment that cannot be moved, such as a refrigerator and a built-in bookcase.

(3) **Abatement** - Defective lead-based surfaces requiring abatement shall be abated by either replacement, encapsulation or removal methods. Repainting or use of paper or vinyl wall covering without abating the defective lead-based surface does not constitute compliance with sections 19a-111-1 through 19a-111-11 of the regulations of Connecticut State Agencies. Appropriate worker protection practices shall be followed as specified in section 19a-111-6 of the regulations of Connecticut State Agencies.

(e) **Occupancy** - Prior to re-occupancy of the abatement area the lead inspector shall ensure through re-inspection that the lead abatement plan has been followed and that the following criteria are met.

(1) Every building component upon which removal of lead based surfaces has been performed will be tested using XRF, AAS, GFAAS, or ICP-AES technologies. Successful abatement of these components consists of either meeting the XRF testing criteria defined in 19a-111-3(a)(1) through 19a-111-3(a)(3) or by AAS, GFAAS, or ICP –AES analysis of every component abated and determination of a level of lead less than toxic.

(2) Samples of dust shall be collected at the following locations in each room or area where lead-based paint has been abated. Additionally, if only a portion of a dwelling unit has been abated, a sample shall be collected from the floor outside the containment within ten (10) feet of the entrance to the abatement area upon completion of abatement activities. Any samples collected under this section shall have lead in dust levels that are below the following clearance criteria for reoccupancy to be allowed:

(A) floors - 40 μg/sq. ft. (micrograms per square foot);
(B) window sills – 250 μg/sq. ft.;
(C) window wells – 400 μg/sq. ft.

(3) When abatement methods of replacement or encapsulation are used in a limited area and very little dust is expected to be generated then clearance dust monitoring may be less than specified in section 19a-111-4(e)(2) if the alternative dust monitoring is specified in the lead abatement plan.

**Explanation:** Section 3 explains the methods the property owner can use for abatement. Section 3 (e) explains that before you can move back in to the home/apartment the local health department must perform a reinspection and say it is safe for you and your family to return.
RCSA 19a-111-5 Time periods for compliance

The local director of health shall ensure that lead abatement projects are completed in a timely fashion according to the time frames specified in the lead abatement plan and according to the following schedule. However, the local director of health may shorten this timetable when he/she deems it necessary for prevention of an imminent health hazard.

Explanation: This section explains that the local Director of Health must make sure that the abatement is moving along. Remember some projects take longer than others because of the amount of work.

RCSA 19a-111-7 Absence of non-workers during abatement

(a) Residents - Residents shall not occupy a room or work area where on-site lead paint abatement is occurring. The lead work areas where lead abatement is occurring must be sealed from the remainder of the dwelling according to section 19a-111-4 of the regulations of Connecticut State Agencies.

(b) Work area - No person shall enter or remain in a work area at any time during a lead abatement project which involves the on-site removal of lead paint, except for the lead abatement contractor and lead abatement workers, federal, state, and local enforcement officials and their designees, lead inspectors, and the property owner or the owner's designee.

(3) At all times when a lead abatement project is being conducted in a common area of a dwelling occupied by two (2) or more dwelling units:

(A) residents shall use alternative entrances and exits which do not require passage through the abatement area, if any such entrance and exit exists

Explanation: This section explains that you are not allowed to be in the area where lead abatement work is happening.

Example: If you have moved out of your home/apartment and abatement work is being done you cannot go back in to the home/apartment until the work is complete and the local health department says it is safe for you to return.

Example: If work is being done on just one room of the apartment, the room can be sealed off and you may continue living in the home/apartment (with local health department approval), but you cannot enter the room where the abatement work is being done. It is an unsafe work area.

19a-111-1 Definitions. As used in sections 19a-111-1 thru 19a-111-11 inclusive:

(1) "Abatement" means any set of measures designed to eliminate lead hazards in accordance with standards established pursuant to Sections 20-474 through 20-482 and subsections (e) and (f) of Section 19a-88 of the Connecticut General Statutes and regulations of Connecticut State Agencies sections 19a-111-1 through 19a-111-11 and 20-478-1 and 20-478-2 including, but not limited to, the encapsulation, replacement, removal, enclosure or covering of paint, plaster, soil or other material containing toxic levels of lead and all preparation, clean-up, disposal and reoccupancy clearance testing.

(2) "Abatement area" means a room or area isolated with containment in accordance with subdivision 19a-111-4(c)(2) of the regulations of Connecticut State Agencies where lead abatement is occurring.

(32) "Elevated blood lead level" means a blood lead concentration equal to or greater than twenty (20) micrograms per deciliter (µg/dl) or as defined by Connecticut General Statutes section 19a-111.

(35) "Epidemiological investigation" means an examination and evaluation to determine the cause of elevated blood lead levels. An epidemiological investigation will include an inspection conducted by a lead inspector to detect lead-based paint and report of findings. This investigation must also include evaluation of other sources such as soil, dust, pottery, gasoline, toys, or occupational exposures, to determine the cause of elevated blood lead levels. The investigation may also include isotopic analysis of lead-containing items.
Dear Parent or Guardian:

From birth to age three, babies have a LOT to learn. Helping your child to be healthy and ready to learn is an important part of your job as a parent or guardian. Giving your child good foods, keeping your child active, sharing books and music, cuddling, and playing games are all ways that you can help your child learn and grow.

High levels of lead in the blood can hurt a child’s ability to learn. Your child has a blood lead level that can damage your child’s brain and affect your child’s later success in school. You need to take steps to make your child safe and healthy:

- **Find the sources of lead** that entered your child’s blood. These sources might be:
  - Lead paint in your home
  - Lead in toys
  - Lead in the dirt outside your home or your child’s daycare,
  - Lead in some health supplements (even those labeled “organic”) other than those that a medical provider prescribes
  - Lead in pipes supplying water used for drinking or cooking
  - Lead in your workplace that you might accidentally bring home
Once you’ve found a source learn how to get rid of it!

- **Encourage your child to eat foods** that may lower the amount of lead your child’s body takes in.
  - Give your child foods that contain **calcium**. These foods include milk, cheese, yogurt, broccoli, sardines, and canned salmon.
  - Give your child foods that contain **iron**. These foods include lean red meat, chicken, turkey, sardines, and tuna.
  - Foods with **vitamin C** (such as oranges, strawberries, green peppers, and potatoes) help your child absorb iron.

- **Watch to see how your child is learning.**
  - Does your child do many of the things expected for his or her age, or is your child missing some important skills (see enclosed “Your Baby Deserves a Good start in Life!!”? Talk with your child’s doctor, read a good child development book, or go online to learn what things children are expected to do at each age.
  - If you think your child is not developing and learning new skills like other children the same age, call the Child Development Infoline at 1-800-505-7000 and talk with them about your concerns.
  - If your child is younger than three years old and is not developing well, you may request a free developmental evaluation from the Connecticut Birth to Three System.
  - Help Me Grow is another program that can help you find community supports and monitor your child’s development through age five.
  - If your child is in school, talk with your local school district for an evaluation.

For more information on lead, talk with your child’s doctor or go to www.ct.gov/dph
For more information on the Birth to Three System, go to www.birth23.org
For more information on child development, call the Child Development Infoline at 1-800-505-7000