中華人民共和國香港特別行政區政府總部教育局
Education Bureau
Government Secretariat, The Government of the Hong Kong Special Administrative Region
The People's Republic of China

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To: Supervisors /Principals of all Kindergartens, Kindergarten-cum-Child Care Centres, Secondary, Primary and Special Schools

Dear Supervisors /Principals,

Measures taken by the Education Bureau regarding Lead in Drinking Water Issues

The Education Bureau (EDB) attaches a lot of importance to the quality of drinking water in schools and the health of students. We are highly concerned about the recent incidents of excessive lead in drinking water found in some schools. This letter aims to set out the series of measures taken by EDB regarding the lead in drinking water issue and the latest development, with a view to safeguarding the health of students through the concerted efforts with schools.

In response to the grave concern about the safety of drinking water among schools and parents on the commencement of the new school year, this Bureau issued a letter to all secondary and primary schools as well as kindergartens on 21 August before the outcome of the study on the cause of excessive lead content in drinking water by the Task Force of the Water Supplies Department is released. In the letter, schools are provided with instant health advice prepared by the Centre for Health Protection of the Department of Health that can be adopted for reducing lead exposure, which includes ways to reduce the risk of lead exposure from tap water and encouraging parents to prepare bottled water for their children. In addition, the Department of Health has just updated its advice on the specifications of filters and points-to-note on taking water from tap. Please refer to the latest health advice at Appendix and act accordingly. Since only filters certified by American NSF 53 Standard for removal of lead can reduce the lead level in water, schools are advised to check if the filters installed or to be installed meet the required standards, and conduct regular maintenance and replacement of the core parts according to the operational conditions in order to obtain the claimed performance. Please note that in respect of the Government-built schools, those drinking fountains installed by the Government are normally provided with sterilisers which use UV light for killing of micro-organisms.

Furthermore, based on the advice of the Inter-Bureau/Departmental meeting on 27 August, the Government has come to a view that operators of facilities built in or after 2005, especially the users of which are mainly children below six and stay in the facilities for a long time to consume drinking water, should consider installing filters which can reduce the lead content in water. On the same day, we immediately issued a letter to all schools advising operators of kindergartens to install filters which can reduce the lead content in water as soon as practicable and announcing that EDB will install by phases filters for public sector schools and Direct Subsidy Scheme schools built by the Government in 2005 or after. In this connection, we have been liaising with the Government Logistics Department (GLD) to assist kindergartens and schools (including schools built before 2005 and those not built by the Government in 2005 or after) for bulk purchase of filters by phases. A letter was then issued to all kindergartens on 28 August to collect information for ordering filters in the first phase. We have been liaising with GLD to make arrangement for the second phase purchase and will collect relevant information from kindergartens, primary and secondary schools as soon as possible.

Since children aged below six are the more vulnerable group, it was announced in the special House Committee meeting of the Legislative Council on 1 September that the Government will conduct water tests for all the 980 kindergartens and also some 80 primary and secondary schools built by the Government in 2005 or after. We have issued letters to all kindergartens as well as the primary and secondary schools concerned to collect information on water tests arrangements on the following day. Based on experience, data and the advice in the report of the Task Force to be issued by the Water Supplies Department, the Government will explore necessary follow-up actions to be taken for other schools.

While individual schools may decide to conduct water tests on their own, they have to note that accuracy of the test results involves complex factors, including the time, method, and whether the location of water sampling is for drinking purpose and the tests are conducted by accredited laboratories. Should schools consider conducting water sampling tests necessary at this stage, and in order to avoid water test results being affected by improper collection of samples and laboratories without accreditation, schools are advised to follow the Water Sampling Procedure issued by the Water Supplies Department and ensure that the test is conducted by accredited laboratories. Relevant information has been uploaded onto the EDB website for schools' reference, with hyperlink as follows:

http://www.edb.gov.hk/en/sch-admin/admin/about-sch/reducing-lead-exposure/index.html

To enhance schools' understanding of the ways to reduce lead exposure and maintain water safety, we are organizing in collaboration with the Department of Health and Water Supplies Department eight identical talks on "Reducing Lead Exposure and Water Safety" for schools

between 9 and 14 September. Please refer to the letter issued by EDB on 1 September for more details.

The Government has also published a booklet titled "Hong Kong's Water Supply - Reducing Lead in Drinking Water" to enhance the knowledge of the public on Hong Kong's water supply and ways to reduce lead in drinking water. The Chinese and English versions of the booklet have been uploaded onto the EDB website (the link is same as above). Schools can also collect copies of the booklet[Note] (two for each school) from their respective Regional Education Office starting from 11 September.

We will continue to work closely with the relevant departments and upload news and latest information onto the website. Schools should make frequent reference to the website. In addition, this Bureau has also set up an enquiry hotline (hotline number: 3698 4125) to provide advice and support to kindergartens and schools. For other enquiries, please contact respective Senior School Development Officer or Senior Service Officer of your school.

Yours faithfully,

Chan Tsui Wah

(Mrs HONG CHAN Tsui-wah)
for Secretary for Education

Note The booklets will be distributed at the three talks on "Reducing Lead Exposure and Water Safety" held for kindergartens and kindergarten-cum-child care centres on 10 and 11 September 2015. Schools which are unable to attend the talk can collect the booklets from the respective Regional Education Office.

Health advice to schools and kindergartens for reducing lead exposure

What is lead?

- Lead is a naturally occurring heavy metal. Lead and its compounds may be found in products such as batteries, paints, ceramics, solder and additive to petrol.
- In everyday life, lead is found everywhere in our surrounding environment, usually generated by the combustion of fossil fuels, mining, industrial manufacturing, and other human activities, and exposure seems inevitable. Notwithstanding this, it is always good for health to achieve the lowest possible lead level in the body.

Health effects of lead

- Lead can enter the human body by ingestion, inhalation and skin absorption.
- When lead is absorbed into the body in excessive amount, it is toxic to many organs and systems. Depending on the lead level inside the body, significant exposure to lead is associated with a wide range of effects, including neurodevelopmental effects, anaemia, high blood pressure, gastrointestinal symptoms, impaired renal function, neurological impairment, impaired fertility and adverse pregnancy outcomes.
- Infants, young children under six, pregnant women and lactating women are more likely to be affected by its adverse effects.

How to reduce lead exposure in school settings:

Reduce the risk of lead exposure from tap water

- If lead should be present in the plumbing system, the longer water has been standing in the pipes, for instance, after several hours of non-use, overnight, over a weekend or after a holiday, the more lead it may contain. Flushing works by removing the water with the most lead from the drinking water system. Running water at a tap, usually for two to three minutes, prior to using it for drinking or food preparation will often reduce lead levels in the water. Taps should be flushed twice a day - in the morning before school starts and at midday before lunch time.

- As hot water increases the amount of lead that may leach from the pipe materials, use only cold water from tap and drinking fountain for cooking and drinking.
- Some domestic water filters (such as those certified by American NSF 53 Standard for removal of lead) can reduce the lead level in water. Nevertheless, no filter will give the claimed performance unless it is suitably designed for the intended use in schools and operated strictly according to the manufacturer's operational conditions with regular maintenance including timely change of core parts. Without proper maintenance, filters may also become an ideal breeding ground for growth of micro-organisms. As chlorine level in water will be reduced by activated charcoal in the filters, the water from filters should be boiled to kill germs before drinking.
- Drinking fountain must be operated strictly according to the manufacturer's operational conditions with regular maintenance including timely change of core parts, in order to obtain its claimed performance.
- Students can also bring their bottled water.

Provide balanced school meals

- Provide balanced school meals as sufficient dietary intake of calcium, iron and vitamin C can help minimise lead absorption. Food sources of calcium include milk, tofu, and calcium-fortified soymilk. Meat, fish, and dark green leafy vegetables are rich in iron. Fresh fruits such as orange and kiwifruits are good sources of vitamin C.
- Provide iron-rich foods in school meals. Provide vitamin C rich fruit together with meals helps the body absorb iron from other foods.

Ensure food safety

- Before cooking, soak and wash vegetables, particularly leafy vegetables, thoroughly to remove dust and soil in order to reduce the level of lead.
- Avoid offering students under six, staff who are pregnant or lactating foods high in lead, such as lime preserved egg, oyster, and shellfish.

Ensure tableware safety

- Refrain from using colour painted ceramic tableware and cups unless the item is labelled "lead-free" or you are sure that the material used is safe.

- Do not store foods and drinks in crystal glassware.

Ensure safe stationery/toys

- Stationery/toys with paints of deeper colour may contain lead. School operators can verify with the retailers or manufacturers or check the product label for statements on the compliance with the ISO, EN 71, or ASTM F963-11 safety standards.
- Remove the stationery/toys if one is not sure whether they are safe for students.

Keep school clean and maintain good personal hygiene

- Remove dust in the school. Mop floors frequently, and use damp cloths or sponge to clean toys, windowsills and furniture etc.
- Students and staff should practise good personal hygiene, including washing their hands before they eat and sleep, as this help remove the lead dust on their skin.

Keep students away from items that may contain lead

- Some paints may contain lead. Fix the deteriorating paints and keep students away from it.
- Soil, damaged batteries and electronic devices.
- Teachers and staff should wash their hands after handling the above items.

More information concerning lead in drinking water can be found in the Department of Health's Centre for Health Protection website: http://www.chp.gov.hk/en/content/40434.html

Centre for Health Protection
Department of Health
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