

The prevention of choleraic diarrhoea, and lead poisoning ; Things to be remembered for health's sake ; and How to bring up children / by John Pitney Aston.

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ECCLESHILL SANITARY DISTRICT.

**THE PREVENTION
OF
CHOLERAIC
DIARRHŒA,
AND
Lead Poisoning,**

Things to be Remembered for Health's Sake,

**AND
HOW TO BRING UP CHILDREN**

**BY
JOHN PITNEY ASTON,**

Medical Officer of Health.

**The secret of cholera prevention is cleanliness, i.e., pure air, pure water, and
pure food; the secret of infantile well-being is proper nursing;
the effective prevention of lead poisoning is by the
prohibition of lead pipes and lead cisterns.**

BRADFORD:

PRINTED BY CHARLES GREENING, ALBION COURT, KIRKGATE.

1894.

H-Bra-3.6 AS

THINGS TO BE REMEMBERED FOR HEALTH'S SAKE.

THE DWELLING.

Never choose a House simply because it looks nice. See that it is *dry* in cellar, walls and cupboards, that it is well lighted with free circulation of air all round it, and no foul out-premises adjoining. Be sure the cellar drain, if any, goes into an open area, and is disconnected from all sewers. See that the House is properly drained and have the drains, w.c., waste and fall pipes all examined and tested by the Sanitary Inspector. All sink, bath and lavatory waste pipes should have *S* bend or syphon traps beyond the inlet and be *disconnected* from the drains by an outlet discharging into the open air, and going thence into trapped and self-cleansing gullies. W.C. soil pipes should be *outside* the House, go of uniform size well up *above the eaves*, and rain fall pipes should never act as drain ventilators by going direct into the drain, but should be *disconnected* like the sink and bath wastes. Do not occupy a House with open midden ashpit. If there is no w.c. or dry earth closet, have the Privy with a window, the ashpit of small size, covered in, concreted at bottom and sides and with air-inlet and ventilating shaft. Do not have Privy and Ashpit close to the dwelling. See that your Ashpit is frequently emptied, and that it is *kept dry* by keeping out all rain and slops, and do not allow kitchen refuse to be thrown into it. Burn all animal and vegetable house waste on the kitchen fire. Never throw slops or old tea leaves, &c., out on the street, back yard, or road. See that your sinks, drains, and gulleys do not get blocked or

foul. Flush all these once a week in Winter and daily in Summer by throwing a pail full of water down them. Do not create nuisances for your neighbours. Get water from the Town's supply even if it costs more, but see that there are no lead cisterns (except for the w.c.) or long lengths of lead pipes. The w.c. water supply pipe should come separately from the mains. Failing Public Baths every House should have a bath room. Never fill the kettle from a hot water tap, and draw off from the kitchen tap a gallon or so of water first thing in the morning, and use this for washing, &c. To test water for lead put a tiny crystal of bichromate of potash in a tumbler of water from the tap. If after it is dissolved the water goes at all cloudy, milky, or opaque there is lead in it. If there is no lead the water will be of clear golden tint. Animal charcoal filters remove lead, but are apt to get foul and require frequent cleaning and renewal. Filtered water soon goes bad and so must be drunk while fresh. Empty all bedroom slops first thing after breakfast, and have the bedroom blinds drawn up, windows thrown well open, and the bed-clothes turned down, and do not make the bed for some hours. Limewash cellar, larder, and out-premises twice a year, and keep your House clean and well ventilated throughout, from garret to basement. Let sunlight flood the dwelling. Preserve health rather than carpets and furniture.

THE SICK ROOM.

A constant supply of fresh air is highly essential in a sick room, but should be admitted without exposing the Patient to a draught. To flush the bedroom open the window, and put extra clothes over the Patient while it is open. The strictest cleanliness is required in the sick room. Remove all liquid and solid excreta and unused food or soiled utensils at once. Never keep invalid's food in the sick room. Avoid making noises and never *whisper* in the sick room. Never tell people they do not look well. In infectious disease put Patient in isolated room, and remove carpets, bed and window curtains, drapery, books and unnecessary furniture, and empty all drawers. Keep a sheet wet with disinfectant both inside and outside the door. Disinfect in boiling water all food utensils before they leave the room, and do not go among other people with the same outer dress as that worn inside the sick room. Wash your hands in disinfectant before you leave the room. Put disinfectant in all receptacles for excreta before being used by the Patient. Use non-poisonous disinfectants. Double the quantity of ventilation is required in infectious cases.

Notify immediately to the Medical Officer of Health any outbreaks in your Household of Scarlet Fever, Diphtheria, Measles, Chicken Pox or Small

Pox, Whooping Cough, Mumps, Erysipelas, Typhoid Fever, Cholera, or Choleraic Diarrhoea, and of Childbed Fever. While infectious disease is in the House keep your children from both Sunday and Day School, and do not let them mix with other children until a Doctor certifies your family free from contagion, and the House has been disinfected and cleansed. Remember that the expectoration of Consumption is infectious, and that when it dries it infects the air and walls as a fine deadly dust. Burn, therefore, all expectoration from consumptives, and after death, fumigate, re-paper, and cleanse as after scarlet fever. Disinfect by boiling or by steam disinfectors, all infected articles from infectious cases. Remove soiled linen, &c., promptly, and keep the Patient clean.

Learn to make a poultice, a basin of gruel, to take a Patient's temperature, how to give an injection, and dress a wound or sore.


When people faint, lay them at once flat down, loose collars and dress, and give them fresh air. In bleeding of the nose raise the hands above the head, in rupture of varicose veins raise the limb above the level of the body, and in bleeding from wounds or the gums apply *pressure* by pads of cotton wool or lint.

PERSONAL HABITS.

Personal cleanliness is most essential to health. The skin throws off *poisonous* matters, and if neglected gets loaded with dirt and germs. Have a warm or Turkish bath at least once a week. If baths give you cold, rub the body down all over daily with a dry rough or bath towel, uncovering only one part of the body at a time. Those whose work makes the skin dirty require baths oftener. Wash the hands before each meal, and always attend to the nails, as they harbour dirt and disease germs. Cleanse the mouth and teeth after each meal, or at least night and

morning. Keep your mouth shut except for laughing, talking or singing. Change the underclothing frequently, and do not sleep in that worn by day. Never sleep in bedrooms with windows and doors closed, and fireplace or chimney made up. Mica-flap ventilators should be in all chimney breasts, and all bedrooms should have air bricks in their walls and air outlets. Avoid intemperate habits, excess in eating, in drinking, or in pleasure. Cultivate active habits, good temper, an obliging and cheerful disposition. Change damp clothes as soon as possible.

This Pamphlet should be preserved for reference.

 Under the Public Health Act it is an offence to expose any person or thing so as to convey contagion: under the Notification Act *the Householder* is required to notify to the Health Officer the scheduled infectious diseases: and under the Diseases Prevention Act it is an offence to throw any infected excreta or rubbish into a Drain or Ashpit without previous disinfection. These Acts are in force in Eccleshill.

Eccleshill Sanitary District.

CHOLERAIC AND SUMMER DIARRHŒA

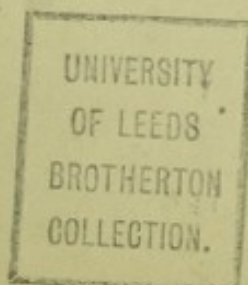
IN RELATION TO

INSANITARY DWELLINGS AND INFANT FEEDING.

UPON the advent of warm weather, and in view of the occurrence Summer
Dangers. last summer of several fatal cases of Choleraic Diarrhœa in the District, the Medical Officer of Health *hereby cautions the public* as to the dangers to health arising from high temperature, when associated with insanitary conditions and neglect of hygienic requirements. The high temperature itself does not produce diarrhœa, but it develops and favours the action of the germs or microbes of fermentation and putrefaction, whose products (called *ptomaines*) act as irritant poisons in the stomach and bowels, so that a catarrh or flux of these organs is set up and the diarrhœa is simply nature's method of throwing off poisonous matters, and relieving the congested mucous membrane of the bowel. Consequently such diarrhœa should not be checked at the outset by the indiscriminate use of so-called Cholera Mixtures.

Our primary duty is to obviate the conditions which allow germ Sanitary
Essentials. or *ptomaine* poisoning to occur.* The sanitary essential is to keep the House and its surroundings clear of animal, vegetable and waste matters undergoing fermentation and putrefaction, and to take no food or drink at all soured or tainted. *All animal and vegetable House refuse should be burnt on the kitchen fire, and no slops should be thrown into the Ashpit or on the street, road, or back-*

* Cholera, infantile diarrhœa, typhoid fever, diphtheria, consumption (tuberculosis), whooping cough, scarlet fever, smallpox, chicken pox, measles, inflammation of the lungs (pneumonia), erysipelas and leprosy, are all due to infective germs which are so small that four hundred millions can lie on a square inch of surface without being overcrowded, and multiply so rapidly that a single germ can produce sixteen millions of progeny in 24 hours.



yard. The chief sources of danger are bad or defective drainage especially as regards house and soil drains, undisconnected and unsyphoned* sink, bath, and lavatory waste pipes, as well as foul or overful ashpits, uncleaned gulleys and cesspools, defective flushing and ventilation of drains, offensive effluvia from Sewer outlets, insanitary Pig Styes, Stables, Mistals, Poultry Houses and back premises generally. All these require daily attention during hot weather, thorough cleanliness and constant ventilation being secured, and no accumulation of Manure, filth or any waste and decomposing matters allowed to occur. Equally important is the cleanliness and sweetness of the Larder, Cellar, and of all food, with the avoidance of all fruit not quite fresh and ripe and of food (especially Meat and Milk) undergoing decomposing or fermentative changes.

Causes of
Infantile
Mortality.

Proper
Infant
Diet.

Improper
Foods.

As regards Milk, it readily absorbs foul gases and disease germs, and itself readily ferments, the souring of Milk being due to fermentation by a special germ or microbe. *In Infants, foul air, sour milk, farinaceous or starchy food, and over feeding are the most common causes of diarrhoeal and other disease.* All Milk should in summer, be well boiled as soon as it comes into the house, and the addition of a little limewater to the baby's milk is useful.† Babies under seven months should always have *only the breast*, or failing that, Cow's milk previously boiled and diluted with barley water or boiled filtered water in proportion according to age. Barley Water is prepared as follows: Two teaspoonfuls of pearl barley to a pint of cold water, boiled down to two-thirds of a pint, and then strained through muslin. A fresh quantity must be prepared at least twice a day. In sweetening Infants' Food always use either *white* sugar or sugar of milk, which latter may be obtained from the Chemist. *But never forget that the only proper food under seven months is MILK.* Bread sop, baked flour, rusks, biscuits, oatmeal, arrowroot, sago, cornflour, and the various patent starchy and farinaceous foods should not be given to Infants under seven months, or who have not cut several teeth, as in infancy the articles of food just enumerated favour diarrhoea, convulsions and a rickety development. Read carefully note as to Feeding Bottles on next page.

* All waste pipes from sinks, baths and lavatory basins should have a syphon, or ∞ bend in them with screw tap for cleaning at the bottom of the bend, and an air vent pipe going through the wall to the outside from the top of the bend for ventilation. Never have waste pipes in bedrooms.

† Milk should never be kept near the kitchen sink, but always in a cool well ventilated place, and milk intended for Children should always be boiled. Cows may suffer from consumption and their milk may then convey the germs. Well boiling destroys *all* germs. Consumption is an infectious disease and the expectoration should always be burnt, as when it dries it infects the air and the walls. After death from consumption fumigate the room with sulphur, re-paper and cleanse just as after scarlet fever.

In serious and grave cases of infantile or summer diarrhoea, especially when vomiting also occurs, even milk may not be suitable till improvement sets in, raw meat-juice being often then given with small doses of Brandy and water or other stimulant according as the Medical Attendant advises. Diarrhoea in Infants should never be neglected, and medical advice always promptly obtained. For further rules of Infant management see cover.

Infantile
Diarrhoea.

In all forms of Choleraic Diarrhoea the stools should be disinfected at the time of passing. All Choleraic cases should be notified to the Health Officer, and where the Privy Ashpit has been used its contents should be emptied as soon as the cases recover. Special receptacles for cholera stools and disinfectants are supplied by the Sanitary Authority on application.

Notification
of Choleraic
Diarrhoea.

General cleanliness of the house, back-yard, and out premises should be rigidly maintained in hot weather with lime-washing of larders and cellars, free ventilation of the whole dwelling and especially the Bedrooms. The Bedroom windows should be wide open during the day and slightly so during the night, and under no circumstances should persons, especially children, sleep in rooms with closed doors and windows, stuffed up chimneys, or in rooms that have no open fireplace or other provision for constant ventilation. *Every* bedroom should have a fireplace.

Ventilation
of Bedrooms.

During hot weather flush daily all House Drains, Sinks, Gulleys, and Sump Basins, by throwing a pailful of clean water down them every day. Sinks should have a large pan of boiling water thrown down them frequently, and to remove grease, a pound of washing soda may be previously dissolved in it. The Health Officer requests to be informed of all ashpits, or gulleys, in back-yards or streets, not regularly cleaned out by the town's scavengers, and whenever foul smells or filth accumulations in connection with Drains, Sewers, Ashpits, Stables, Mistals, Poultry Houses, Pig Styes, and Pig Swill, Public House Urinals, Gulleys, or other insanitary conditions are observed, please report the matter at once to the Nuisance Inspector either at the Local Board Office, or at 104, Killinghall Road.

How to keep
Drains and
Sinks sweet.

Should cases of Cholera occur send for a Doctor at once and *till* he comes Camphor in Pills or the Tincture dropped on lump sugar in doses according to age, may be taken every ten or fifteen minutes for an Hour. Notification *by the Householder* of cholera and other dangerous infectious diseases to the Medical Officer of Health is required by Law. See under "*Sick Room.*"

Cholera.

N.B.—As regards bottle fed Infants, too much attention cannot be paid to the thorough cleanliness of the feeding bottle. Bottles with long tubes should not be used at all. The old fashioned straight or boat-shaped kind with india-rubber teat, and without any tube at all being best. It is quite impossible

Feeding
Bottles

to prevent corks and tubes from becoming foul and turning the milk sour, and a single drop of sour milk may cause fatal illness in a child. At least two feeding bottles should be kept in use and as soon as fed the feeding bottle and teat should be well cleansed throughout with hot water and when not in use the whole should be kept in a basin of cold water with a pinch of Bicarbonate of Soda dissolved in the water, and rinsed with clean water before use. The raw meat-juice is prepared by well mincing a pound of raw Beef, adding one tablespoonful of water, well pressing the whole through a muslin bag and giving the expressed juice in half teaspoonful doses.

Meat-Juice.

Filters and
Lead
Poisoning.

Filters also require thorough cleaning at least every week, by running through them a teaspoonful of Condyl's Fluid, mixed with a quart of water, and afterwards again run through with clean water. They should be of animal charcoal, allow of the charcoal being easily renewed, not cemented in, and without sponges. It may be stated in connection with the Medical Officer's lead-poisoning agitation, that in Eccleshill, since the use of Filters and the hardening of the water, the annual death rate has fallen from over 19 per 1,000 of population to 14 per 1,000, and the Infantile Mortality has been reduced by one half, moreover the annual birth rate which fell 9 per 1,000 in the lead poisoning time has latterly gone up by 6 per 1,000. But in wet weather and where there are long lengths of lead pipes there is still danger, and in such cases all drinking and cooking water should either be filtered through a Mawson and Swan, or other reliable Animal Charcoal Filter, or else the Tap allowed to run full for a minute or two each morning. Do not waste what is run off, but use it for washing and cleansing purposes. *Never fill the kettle from the hot water tap.* Never occupy a house with lead hot water cistern, or long lead service pipes, and Sanitary Authorities who allow them should be liable to prosecution.

Proper
Water
Service

In all New Houses Lead Service ought to be strictly prohibited, iron pipes coated with Angus Smith's solution, or iron pipes with tin or glass lining being used. The w.c. cistern may be of lead.

Extract from IS MY HOUSE HEALTHY? How to find out. By Dr. Cameron, Medical Officer of Health, Leeds. Price 1s. R. Jackson, Commercial Street, Leeds. Copies may be had at the Local Board Office.

Do not yourself create a nuisance for your own household and your neighbour's, by harbouring live stock on close premises. If your ashpit and other receptacle be within twenty yards of your house, insist upon its being frequently and regularly emptied. Limit the contents of your ashes-place by consuming all solid vegetable and animal refuse in the kitchen fire. Keep your ashpit also dry—the drain, and not the dust-bin, should receive all liquid slops. Cleanse every gully in your yard once a week, and perhaps oftener in summer; and in warm weather flush out each trap at night before going to bed. The smaller and closer your backyard, the more necessary are these precautions, if you would have your house healthy.

ECCLESHILL, July, 1894.

HOW TO BRING UP CHILDREN.

1.—Keep them warm. Let the clothing be warm (*i.e.*, flannel or woollen) but not tight. Children should wear stockings nearly up to the knees, and frocks well up to the neck with long sleeves. *Never dress babies or children in short sleeves.* Wash them all over with warm water daily, and be sure to dry them thoroughly. After the *first* washing do not allow the nurse to squeeze the baby's nipples or to give it castor oil, butter and sugar, or cold water. The first milk from the breast is the natural aperient. Give children plenty of fresh air; send them out daily when the weather is fine, and while they are out air the room freely by opening the window, and always open the window at least twice a day. Let the child sleep in a cot by itself.

2.—**Milk** is the only proper food under seven months, and the breast is the natural source of supply. If the mother has too little milk let the child have what there is, and in addition, cow's milk as directed in Rule 4. Milk from one cow is not necessary. For a month before birth harden the nipples by the daily application of brandy lotion (*i.e.*, equal parts of brandy and water). From the first feed the child at regular hours and not every time it cries. In the first month, every two hours from 6-0 a.m. to 10-0 p.m., and once in the night at 2-0 a.m. Increase the intervals gradually so that at the end of three months it is fed every three hours. Too frequent feeding is a common cause of sickness, and irregular feeding causes wind and colic. For flatulence add a teaspoonful of dill or cinnamon water to the next supply of milk, or, if suckled, give the dill water in warm water. If these fail a few drops of spirits of nitre got from a good chemist may be tried. For constipation, sweeten the milk with manna. Ordinarily it is best to sweeten with sugar of milk got from the chemist, but failing that, use *white* and never brown sugar. Do not make the food too sweet.

3.—Except when ordered by a doctor never give any of the foods prohibited on page 2 to babies under seven months, as till some teeth are cut, neither saliva nor pancreatic (sweetbread) juice are secreted, and these are necessary for the digestion of starchy and farinaceous foods such as bread sop, baked flour, &c. After seven months and the cutting of some teeth, it may have one or two meals a day slightly thickened with good well-baked bread or well-boiled porridge, but still plenty of plain breast or cow's milk besides.

4.—If the child *must* be brought up by hand it should be fed with milk and water out of a bottle. At first there should be nearly as much water as milk, but when the child is a month old, two parts of milk should be mixed with one of water; after that the proportion of milk should gradually be increased till at four or five months the milk is given plain. Always boil cow's milk to be used for children as soon as it comes from the dairy. Use bottles with teats only and not with tubes. Attend rigidly to cleaning the feeding bottles as directed in the note on page 3. If the cow's milk disagree, add a tablespoonful of lime water to each supply or use barley water to dilute the milk, and when these fail to secure easy digestion try the addition of isinglass. Always smell bottle, teat, and milk to be sure all are sweet, and it is a good plan to test the food with blue litmus paper got from the chemist. If this be markedly *reddened* the food is unfit for the child and a fresh lot must be prepared. As a rule the child should be weaned at ten months old, and always as soon as the periods return or another pregnancy occurs. At twelve months it *must* be weaned and an egg lightly boiled or milk pudding may now be given, or some beef tea. At eighteen months a little well-cooked mashed potato with gravy may be given, but no solid animal food until two years old, and even at that age milk should still be the chief food. *Remember that 4 out of 5 infants who die, die from improper feeding.* It does not require East End babies' diet of gin, cheese, and periwinkles to slay an infant, for either "the same as we get ourselves" or the finest flour can do the deed as effectually.

BOOKS TO READ.

- 1.—Our Babies and how to take care of them, by Florence Stacpoole. Alex. Gardner, Paisley and London. Price, 3d.
- 2.—Nursery Hygiene, by Dr. Joll. Hy. Kimpton. 2s.
- 3.—The Personal Care of Health, by Dr. Parkes. Society of Christian Knowledge. 1s.
- 4.—Is My House Healthy? How to find out, by Dr. Cameron. R. Jackson, Leeds. 1s.
- 5.—Homely Hints on Health, by Mrs. Greenup. Marcus Ward. Price 1s.

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