Health Messenger

Distance Learning Health Magazine

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Health Messenger has introduced this system of icons which represent the main topics that are most relevant for the health worker. If the icon above is colored or "on" then one or more articles have been prepared for that topic in this issue. If the icon is "off" then there is no article for that topic in this issue.
Among all methods enabling the assessment of children's nutritional state, measuring the brachial perimeter is probably the most useful and accessible one for Community Health Agents.

Principle

The brachial perimeter varies very little with age. Age one to five is the period of highest vulnerability to malnutrition and it does not reach 1 cm. in variation. On the other hand, greater differences may be observed between malnourished and healthy children. Thus, thanks to the measurement of the brachial perimeter, a Health Agent may quickly and easily identify a malnourished child and make the appropriate decision.

For a better understanding, we have reproduced (Fig. 1), the chart showing the growth of arm's circumference according to age.

Method

To find the value of the brachial perimeter, simply measure the middle part of the arm with a measuring tape or any other tool such as a strip of coloured cloth as shown in (Fig. 2).

Measuring tools used

Tools that are used to measure the brachial perimeter are very diverse:
- Measurement may be taken with a plastic or metal measuring tape.
- They may also be taken with a string of different colours or a string knotted at various intervals.
- You may find rings of various colours.
- It is possible to use plastic strings and to write figures or add colours. These strings are called Shakir's strings from the man who first suggested this simple process. (Fig. 3)

Significance & advantage of measuring the brachial perimeter using a Shakir's string

a. Great value of this indicator for assessment of nutritional state, particularly between six months and thirty-six months.
b. Measurement easy to obtain.
c. Knowledge of the child's exact age not necessary (except before six months).
d. Method easy to use for Community Health Agent.
e. Extremely low costs of the tools.
f. Measuring tool easy to produce anywhere.
g. Easy to transport: you can walk or drive a bicycle (contrary to the scales).
h. This method allows screening of kwashiorkor. In fact kwashiorkor usually shows no clinically detectable oedema in this part of the arm whereas muscle wasting is quite obvious.
Fig. 3

Measuring tape for brachial perimeter

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1. "observable...untouched"  
2. "cases...entire"  
3. "arrows...inflamed"  
4. "Figure...3 cm.

---

Measurements are shown in the image.

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1. "observable...untouched"  
2. "cases...entire"  
3. "arrows...inflamed"  
4. "Figure...3 cm."
Use and data provided by the brachial perimeter’s measurement

a. It is essential to do some practical exercises together with the Health Agents who will have to use this tool. It would be interesting, if possible, to do demonstrations with both healthy and malnourished children. It is also possible to use cylinders of various circumferences (inferior to 12.5 cm, between 12.5 & 13.5 cm and superior to 13.5 cm). These cylinders may be bits of tree branches, PVC tubes. Toilet paper rolls may also be used, once cut and glued to the required dimension.

b. Health Agents will measure children of their area. They will inform the people about the method and the significance of the measurement in terms of nutrition. This process will make people aware of the concern.

c. These surveys are only relevant if people are willing to take the necessary step for nutritional rehabilitation of their children. There is no solution to the problem if the lack of resources is the cause of malnutrition.

Measures for a classification in three categories

See (Fig. 4)

When the string is placed around the middle part of the arm and the pointer 0 is opposite the green zone, the child is healthy.

When pointer 0 is opposite the yellow part of the string, the child is most likely malnourished or ill.

When pointer 0 is opposite the red part of the string, the child is malnourished. The state of malnutrition is all the more worrying since the distance between pointer 0 and the red coloured zone is small. In other words, the smaller the arm’s measurement is, the more serious is the state of malnutrition.

<table>
<thead>
<tr>
<th>Color</th>
<th>Brachial Perimeter (cm)</th>
<th>Nutritional Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>&lt;12.5</td>
<td>Malnourished</td>
</tr>
<tr>
<td>Yellow</td>
<td>12.5-13.5</td>
<td>Likely to be malnourished</td>
</tr>
<tr>
<td>Green</td>
<td>&gt;13.5</td>
<td>Well nourished</td>
</tr>
</tbody>
</table>
Measures for a classification in 3 categories

When pointer 0 is opposite the green zone, the child is healthy.

When pointer 0 is opposite the yellow part of the string, the child is probably malnourished or ill.

When pointer 0 is opposite the red part of the string, the child is malnourished.

Full-scale Shakir's string:

Pointer ° 0°

13.5cm

12.5cm
**Recommendation to Potential Contributors**

This magazine is yours and you are strongly recommended to participate by sending your articles. Each article must be accepted by the Editor before publication. We reserve the right to change or simplify the article. Please send contributions to:

**Health Messenger**  
117/9 Sukhumvit Soi 4, Soi Samaharn  
Klongtoey, Bangkok 10110 Thailand.  
Tel: 02 656 9370  
Tel/Fax: 02 656 8869 or  
E-mail: hmess@loxinfo.co.th.

Each medical article must fit in with only one of the following topics:

- Diagnosis
- Prevention
- Case Study
- Treatment
- Sanitation
- Health Education
- Laboratory
- Maternal and Child Health
- Social
- General Health
- Interview

Non-specific medical articles can be accepted too.  
e.g., From the field

**Size**

As far as possible, articles should be between 2-3 pages of 2000 characters each page (space included).

**Style and contents**

Articles should be written in simple and clear English, French, or Burmese. Difficult words must be explained in a glossary.

Each article must always contain a title; the name and qualification of the author; picture, drawings or ideas for them; boxes summarizing the important parts, references.
Nutrition is the science of food. It is the study of major food components, which include proteins, carbohydrates, fats, vitamins, minerals, water and fibre.

To be healthy and strong our bodies need a balance of different nutritious foods every day. At every meal we should eat something from each of these three groups:

1. Body building foods or Proteins
2. Energy foods or Carbohydrates and energy storage foods, Fats & Oils
3. Protective foods, those rich in Vitamins and Minerals

Apart from the three main groups food also contains:
4. Water
5. Fiber

1. Proteins

Proteins are body building foods. They are necessary for proper growth for building healthy muscles, brain, and many other parts of our bodies. To grow and to be strong every one should eat enough protein every day.

Proteins are broken down into amino acids. These, amino acids are carried to the liver, from there they are distributed to other tissues. Protein comes from two sources, animal protein and vegetable protein.

Animal proteins includes eggs, milk, meat, fish, and poultry. Vegetable proteins come from peanut, beans, bread and cereals. Daily requirement of an adult is 0.8g/kg body weight.

Protein deficiency will cause Malnutrition. In children this can be seen in two forms:
   a. Kwashiorcor*
   b. Marasmus*
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<td>၅၀ ပေါ်</td>
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2. Carbohydrates, Fats and Oils

Carbohydrates are oxidized as glucose but are consumed in various forms: glucose, fructose, galactose, lactose, sucrose, maltose.

Carbohydrate is the basic component of food, and is the body's chief source of energy.

Source of carbohydrates are from milk, cereals, fruits, and vegetables.

Daily Carbohydrate requirement for an adult is 50 to 100gm/day.

Fats or their metabolic products form an integral part of cellular membranes and are efficient for storage of energy. Naturally occurring fats contain fatty acids, saturated and unsaturated fatty acids.

3. Vitamins & Minerals

Vitamins are required to catalyze cells metabolism, which is essential for growth or maintenance of the organisms. Vitamins are of two types;

a. Fat soluble vitamins, A, D, E, and K

b. Water soluble vitamins, B complex group, and Vitamin C.

4. Water

Water is essential for existence and lack of it will result in death in a matter of days. Although dietary fluids provide the principal source of water, some water is obtained from the oxidation of foods.

Human needs for water are related to calorie consumption, to insensible loss and to specific gravity of urine.

Water is absorbed throughout the intestinal tract. Water balance depends on variables, such as the proteins and mineral contents of the diet. Water loss is by renal excretion, metabolism, respiration, and the skin.

5. Fiber

Dietary fiber are the components of plant cells. It has no nutritive value. Highly refined foods contain little fiber and may be associated with constipation, appendicitis, and other intestinal disorders. High fiber intake may result in decreased absorption of cholesterol as well as zinc and other essential nutrients.

Table (1) Fat soluble vitamins, A, D, E, K

<table>
<thead>
<tr>
<th>Name</th>
<th>Food Sources</th>
<th>Deficiency symptom</th>
<th>Daily requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin A</td>
<td>Liver, fish liver oil, orange colored vegetables, fruits, deep green vegetables</td>
<td>Night blindness, Xerophthalmia*</td>
<td>5000 I.U</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>Liver, milk, fish liver oil, exposure to sunlight</td>
<td>Rickets*, in children Osteomalacia* in adults</td>
<td>400 I.U</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>Oils of various seeds, vegetable oils, nuts, legumes.</td>
<td>RBCs hemolysis*, premature infants, loss neural integrity</td>
<td>30 I.U</td>
</tr>
<tr>
<td>Vitamin K</td>
<td>vegetables, pork, liver</td>
<td>Haemorrhagic manifestations</td>
<td>70 ug</td>
</tr>
</tbody>
</table>
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**Blindness due to Vitamin A deficiency**

*ကျွန်ုပ်တို့၏ အားထုတ်လာခဲ့သော အရာများ များစွာ မေးခွန်ချက်များ ပြည်ပွဲ ၅၄၃ မှ ပြောပြင်စိတ်ဝင်စားပါ မေးခွန်ချက်များ ပြည်ပွဲ ၅၄၃*
Table (2) Water soluble vitamins, B complex group and Vitamin C

<table>
<thead>
<tr>
<th>Name</th>
<th>Food Sources</th>
<th>Deficiency symptom</th>
<th>Daily requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thiamine, B₁</td>
<td>Pork, Wheat Germ, Whole grains, dried</td>
<td>Loss of appetite, Beriberi anorexia, vomiting, constipation, depression</td>
<td>1 mg</td>
</tr>
<tr>
<td></td>
<td>bean seeds, nuts, enriched flour, bread.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riboflavin B₂</td>
<td>Liver, milk, dark green, leafy vegetables</td>
<td>fissures at the angle of mouth, sore tongue, feeling of grittiness in eye</td>
<td>1-2 mg</td>
</tr>
<tr>
<td>Niacin</td>
<td>Liver, meat poultry, fish, some nuts,</td>
<td>severe diarrhea, painful sore mouth, &amp; gastrointestinal disorders, Dermatitis, Mental</td>
<td>13 mg</td>
</tr>
<tr>
<td></td>
<td>whole &amp; enriched grains, bread, dry beans</td>
<td>derangements, Pellagra*</td>
<td></td>
</tr>
<tr>
<td>Behexavit B₆</td>
<td>Liver, meat, poultry, fish, some nuts &amp;</td>
<td>convulsions in infants, greasy dermatitis inflamed mouth with ulcers</td>
<td>2 mg</td>
</tr>
<tr>
<td></td>
<td>seed</td>
<td></td>
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<tr>
<td>Pantothenic Acid</td>
<td>Liver, peanuts, whole wheat, eggs,</td>
<td>Fatigue, insomnia, abdominal pain, bad-tempered numbness of hands &amp; feet</td>
<td>4-7 mg</td>
</tr>
<tr>
<td></td>
<td>chicken</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Folic acid</td>
<td>Liver, dried beans, dark green vegetables, orange juice, bread</td>
<td>macrocytic anemia, red sore tongue, diarrhea, wt. loss weakness, irritable</td>
<td>400 µg</td>
</tr>
<tr>
<td>B₁₂ Cynocobylamine</td>
<td>Animal food, liver, meat, poultry, fish, eggs, milk</td>
<td>Macrocytic anemia, poor coordination, severe malnutrition disorders</td>
<td>3 µg</td>
</tr>
<tr>
<td>Biotin</td>
<td>Liver, beans, nuts, yeast, fresh vegetables</td>
<td>pallor, drowsiness, muscle pain, numbness and loss of appetite, scaly dermatitis</td>
<td>100-200 µg</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>vegetables, citrus fruits, tomatoes, strawberries</td>
<td>hemorrhages under skin, bleeding gums, Scurvy</td>
<td>60 mg</td>
</tr>
<tr>
<td>Ascorbic acid</td>
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Vitamin riched fruits and vegetables

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<td>ဆေးသာော အချက်အလက်များ</td>
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<td>ဆေးသာော အချက်အလက်များ</td>
</tr>
</tbody>
</table>
### Table (3) Major minerals

<table>
<thead>
<tr>
<th>Name</th>
<th>Food Sources</th>
<th>Deficiency symptom</th>
<th>Daily Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td>table salt, milk, eggs, baking soda, preserved foods</td>
<td>nausea, diarrhea, muscle cramps, dehydration, hypotension</td>
<td>1100 mg</td>
</tr>
<tr>
<td>Potassium</td>
<td>all foods</td>
<td>weakness, anorexia, tachycardia, nervous irritability, confusions</td>
<td>1875 mg</td>
</tr>
<tr>
<td>Chloride</td>
<td>Table salt, meat, milk, eggs</td>
<td>poor appetite, growth of head, more alkaline blood</td>
<td>1700 mg</td>
</tr>
<tr>
<td>Calcium</td>
<td>milk, vegetables, salmon, clams, oysters</td>
<td>tetany*, rickets</td>
<td>800 mg</td>
</tr>
<tr>
<td>Phosphorous</td>
<td>milk, eggs, legumes, nuts, whole grains</td>
<td>muscle weakness, low birth weight</td>
<td>800 mg</td>
</tr>
<tr>
<td>Magnesium</td>
<td>cereals, legumes, nuts</td>
<td>poor appetite, nausea, muscle tremors</td>
<td>300 mg</td>
</tr>
</tbody>
</table>

### Table (4) Minerals (Trace elements)

<table>
<thead>
<tr>
<th>Name</th>
<th>Food Sources</th>
<th>Deficiency symptom</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>Liver, meat, egg yolk, vegetables, whole grains, nuts</td>
<td>hypochromic microcytic anemia, growth failure</td>
<td>10 mg</td>
</tr>
<tr>
<td>Zinc</td>
<td>meat, grains, liver</td>
<td>dwarfism*, anemia, poor wound healing, hyper-pigmentation</td>
<td>15 mg</td>
</tr>
<tr>
<td>Iodine</td>
<td>iodized salt, sea food</td>
<td>simple goiter*</td>
<td>150 µg</td>
</tr>
<tr>
<td>Chromium</td>
<td>yeast, liver, poultry</td>
<td>abnormal glucose tolerance</td>
<td>50-200 µg</td>
</tr>
<tr>
<td>Fluoride</td>
<td>water, seafood</td>
<td>tendency for tooth decay</td>
<td>1.5-4 mg</td>
</tr>
<tr>
<td>Copper</td>
<td>Liver, meat, fish</td>
<td>anaemia skeletal changes</td>
<td>2-3 mg</td>
</tr>
</tbody>
</table>
ရေးယူရန်မှတ်ခင်း:

သို့ရာတွင်းသူသောင်းမှုအားလုံးကို သုံးပြီး စောင့်ကြည့်ရင်းသောင်းမှုကို စိတ်ဆီးဖျင်ရည်ညွှန်းသူအသုံးပြုသူအား စီမံခန့်ခွဲသွားပါစေ။

ဖော်ပြချက်:

သူရောက်ငါးသောင်းမှုအားလုံးကို သုံးပြီး စောင့်ကြည့်ရင်းသောင်းမှုကို စိတ်ဆီးဖျင်ရည်ညွှန်းသူအသုံးပြုသူအား စီမံခန့်ခွဲသွားပါစေ။

Fig. 1

Cleaning airway
သူရောက်ငါးသောင်းမှုအားလုံးကို သုံးပြီး စောင့်ကြည့်ရင်းသောင်းမှုကို စိတ်ဆီးဖျင်ရည်ညွှန်းသူအသုံးပြုသူအား စီမံခန့်ခွဲသွားပါစေ။

Fig. 3

Mouth to mouth resuscitation
သူရောက်ငါးသောင်းမှုအားလုံးကို သုံးပြီး စောင့်ကြည့်ရင်းသောင်းမှုကို စိတ်ဆီးဖျင်ရည်ညွှန်းသူအသုံးပြုသူအား စီမံခန့်ခွဲသွားပါစေ။
RESUSCITATION OF THE NEWBORN

Adopted from Teaching Aids

Definition
Stimulation of heart beat and/or breathing when the newborn fails to do this itself.

Diagnosis
If newborn doesn’t breath within one minute of delivery and/or heart rate falls below 80 / minute, then ACTION is required.

Management
Airway
Clear mucus and meconium* from airway.

No Breathing
a) Suck first any liquor, mucus, meconium out of the nose and mouth. (Fig. 1)
b) Dry the baby quickly and cover with a warm towel to prevent heat loss.
c) Put oxygen mask over the face, flow rate of oxygen: 2 litres / minute. (Fig. 2)
d) Use resuscitare (breathing bag) to inflate lungs, 40-60 puffs / minute.

If oxygen is not available, mouth to mouth resuscitation can be carried out.

Mouth to mouth resuscitation
Keep head bending position by pushing a rolled towel or cloth under the back of the newborn. (Fig. 3)

Blow gently (40 times a minute). Be careful not to blow from lungs, just blow from cheeks. (It means little air is only needed; if forceful blow given can burst the lungs of newborn).

Most babies start breathing with first two blows. If he does not start breathing go on blowing for 15 minutes.

Low Heart Rate
Cardiac massage by rhythmic pressure applied over the middle of sternum (breast bone), try for 100 compressions / min, on a firm surface (Fig. 4).

Resuscitation attempts that have not succeeded by 20 minutes should be stopped.
To the readers

The following is mid-year test. You can answer either in English or in Burmese. Write down your answers on this sheet and please return to the following address by 31 July 99. The best 40 will receive a prize.
Put ✓ or fill in blanks for correct answers.

Health Messenger Magazine Program: (Q & A)

117/9 Sukhumvit Soi 4,
Soi Samaharn, Klongtoey,
Bangkok 10110 Thailand

Name
Position
Address

1. To assess the nutritional status of a child, the measurement is taken at:
   (a) the thigh
   (b) the head
   (c) the middle part of the arm

2. The assessment of nutritional status is classified in three categories; when pointer "0" is at the yellow part:
   (a) the child is likely to be malnourished or ill
   (b) the state of nutrition is good
   (c) the child is malnourished

3. The length of the green color part is:
   (a) 13.5 cm
   (b) 12.5 cm
   (c) 10 cm
4. Beans are body building food:
   (a) true
   (b) false

5. Main source of energy is from :
   (a) protein
   (b) carbohydrate
   (c) vitamins

6. Animals and vegetables are sources of proteins :
   (a) true
   (b) false

7. Protein deficiency in children can be seen in two forms:
   (a) ........................................
   (b) ........................................

8. Glucose is the oxidized form of ............

9. Some eye diseases are due to deficiency of :
   (a) vitamin A
   (b) Vitamin C
   (c) Vitamin D

10. Neuritis is a result of :
    (a) vit A deficiency
    (b) vit B₁ deficiency
    (c) Iron deficiency

11. Goiter is due to lack of :
    (a) vit D
    (b) iodine
    (c) fluoride

12. A source of vit A is :
    (a) orange colored fruits
    (b) carbohydrate
    (c) water

13. Vit B₂ deficiency may provoke :
    (a) fissures at the angle of the mouth
    (b) Osteomalacia
    (c) vomiting
14. Muscle cramps arise from lack of:
(a) calcium
(b) sodium
(c) vitamin C

15. Tooth decay may be due to:
(a) deficiency of fluoride in the diet
(b) lack of chloride
(c) excess of vitamin D

16. Name the common symptom of the deficiencies of the following:
(a) Vitamin D:
(b) Vitamin K:
(c) Vitamin B₁₂:
(d) Vitamin E:
(e) Folic acid:
(f) Potassium:
(g) Iron:
(h) Niacin:
(i) Sodium:
(j) B₆:

17. Dietary fiber has no nutritive value but little amount of fiber in the diet can cause

18. At the moment of birth the five senses are all working:
(a) true
(b) false

19. For good mental growth the child’s greatest need is

20. Pre-school and child care programs can help a child to develop skills:
(a) true
(b) false

21. The child can sit without support at the age of:
(a) 3 months
(b) 6 months
(c) 1 year
22. Who are the best observer of a child’s development?

23. The child’s speaks clearly at the age of:
(a) 2 years
(b) 4 years
(c) 5 years

24. The child can feed himself or herself at the age of:
(a) 12 months
(b) 2 years
(c) 4 years

25. The first step for resuscitation is

26. In mouth to mouth resuscitation of a newborn blow air at a rate of:
(a) 60 times/minute
(b) 40 times/minute
(c) 20 times/minute

27. If oxygen is available and the baby is not breathing well, what is the rate to pass:
(a) 5 liters/minute
(b) 3 liters/minute
(c) 2 liters/minute

28. Water borne diseases can be prevented by drinking

29. Environmental sanitation can be improved by

30. What are the various routes of water losses?
RESUSCITATION OF THE NEWBORN

1ST MINUTE: CHECK FOR:
- HEART RATE
  - HR (baby's)
- COLOUR
  - PINK
  - PALE / NOT PINK (NOT blue)

WHAT TO DO?
1. Dry with warm towel
2. Suck if meconium
3. Keep warm

BREATHE WELL
⇒ After a few seconds, regular breathing

⇒ Not breathing well, no deep breaths and not taking regular breaths
- HR > 100 beats / min
- PALE / NOT PINK (NOT blue)

⇒ Not breathing at all. Baby makes no effort to breathe
- HR < 100
- PALE / BLUE
1. Dry quickly with warm towel
2. Suck if meconium or airway obstruction
3. CALL FOR HELP: EMERGENCY

4. Start resuscitation
5. Give painful stimuli
6. AIRWAY: support jaw forward
7. Give Oxygen 5-10 litre/min via Ambu Bag. Place the mask over the nose and mouth. Seal well, support jaw. Aim for 60 breaths / min
8. CPR: 100 beats / min
9. Assess chest movement, breathing effort, heart sounds, colour, tone and movement
10. If no change in 5 mins, HR < 80/min
   ADRENALIN 0.3 cc sub-cuticular
11. Continue resuscitation and assess in 5 min. If no improvement, repeat ADRENALIN. If no breathing after 15 mins of resuscitation ⇒ cease efforts

Keep warm by wrapping in dry cloth. Use a warm water bottle but...Check the baby half hourly and NEVER place the hot water bottle next to the skin. It will burn the baby.

If better:
- If not better:
  - If better:
မယ်လောက်စိုက်စာချက်  "ကြက်ကလေးကလေးစရာ စိုက်စာချက် များ" ကို အသုံးပြုသူအတွက် အခြေခံစာကြောင်းကို ဖတ်ရှောက်ပါ၀င်လိုက်ဆိုင်ပါ။

ပူးပေါင်းခြင်းသည် သူကို သေချာစေသည်။ သူ့အတွက် သင့်အချက်အလက်များဖြင့် သင့်အတွက် ရှိသော လေးတစ်လျော် သိမ်းဆည်းနိုင်သည်။

ဗီဒီယိုနှင့် အျင်းလုံးကြက်ကလေးများက ကြက်ကလေးကလေးစရာ စိုက်စာချက်များကို နားလည်နိုင်သည်။

Children need new and interesting things to look at.

- ကြက်ကလေးများက ကြက်ကလေးကလေးစရာ စိုက်စာချက်များကို နားလည်နိုင်သည်။
- မယ်လောက်စိုက်စာချက် အခြေခံစာကြောင်းကို ဖတ်ရှောက်ပါ၀င်လိုက်ဆိုင်ပါ။
Child Development

What every family and community has a right to know about

Babies begin to learn rapidly from the moment they are born. By the end of the second year of life, most of the growth of the human brain is already complete. The first few years are also vital for the development of behavior and personality.

The seven prime messages in this chapter can help parents to ensure that their children grow up happy, well behaved and well balanced - and to build the foundations for a child to learn well at school.

1. Babies begin to learn rapidly from the moment they are born. By age two, most of the growth of the human brain is already complete. For good mental growth, the child’s greatest need is the love and attention of adults.

- A baby’s five senses - sight, smell, hearing, taste, touch - are all working from the moment of birth. And from the moment of birth, a baby begins learning about the world.

- From birth, one of the greatest needs of all children is to be talked to, touched, cuddled, hugged, to see familiar faces and expressions and to hear familiar voices, and to see that others will respond to them. Children also need new and interesting things to look at, listen to, watch, hold, and play with. This is the beginning of learning. Human voices are the most important thing for the baby to hear, human faces are the most important thing for the baby to see. Babies should not be left on their own for long periods of time.

- If a child has plenty of love and attention, and babyish play, as well as good nutrition and health care, then the child’s mind will also grow well.

2. Play is important to a child’s development. By playing, a child exercises mind and body, and absorbs basic lessons about the world. Parents can help a child to play.

- Children play because it is fun. But it is now known that play is also an important part of a child’s development.

- By playing with simple objects and imitating the world of adults children begin to learn about the world around them. Play also helps develop the skills of language, thinking, and
Play is important to a child's development.
organizing. Children learn by trying things out, comparing the results, asking questions, setting themselves new challenges, and finding ways to succeed. Play builds knowledge and experience, and helps a child to grow in curiosity, confidence, and control.

- Parents can help a child’s play - and learning - by providing things to play with and suggesting new things for the child to do. But parents should not control or dominate the child’s play too much. They should watch closely and follow the child’s ideas and wishes.

Parents can help a child to do what he or she wants to do; but if parents do too much then the child loses the chance to learn by trying to do things for himself or herself. Children learn most from trying to do something and failing and then trying different way and succeeding.

- When a very young child insists on trying to do something for himself or herself, parents should be patient. As long as the child is protected from danger, struggling to do something new and difficult is a necessary step in the child’s development - even if it means some frustration. A little bit of frustration helps a child to learn and master new skills. Too much frustration can be discouraging and gives the child a sense of failure. Parents are the best judge of when to offer help and when to leave children to find their own solution.

- Children love to dress up and pretend to be someone else - mother, father, teacher, doctor, or some imaginary character. This kind of play is also important. It helps the child to understand and accept the ways in which other people behave. It also helps to develop the child’s imagination. Parents can encourage these ‘let’s pretend’ games by giving children old clothes, hats, bags, beads, or pieces of fabric to play with and dress up in.

- Children sometimes need to play alone. But sometimes they need to play with adults as well. Talking to infants, repeating words and sounds, singing, music, nursery rhymes, repetitive babyish games - all of these are vital to the child’s happiness and normal growth and development.

3. Children learn how to behave by imitating the behavior of those closest to them.

- The example set by adults and older children is more powerful than words or ‘orders’ in shaping the growing child’s behavior and personality. If adults show their anger by shouting, aggression, and violence, children will learn that this is the right way to behave. If adults treat children and others with kindness, consideration, and patience, children will follow their example.
Children learn how to behave by imitating the behavior of those closest to them.
Children under the age of about four years are naturally self-centered. Only gradually do they learn to share and consider others. Selfish and unreasonable behavior is normal in young children because they are emotionally as well as physically immature. As they grow up, children will learn to be unselfish and reasonable if others are unselfish and reasonable with them. They will learn to treat others as they themselves have been treated.

4. Young children easily become angry, frightened, and tearful. Patience, understanding, and sympathy with the child's emotions will help the child to grow up happy, well balanced, and well behaved.

Parents need to understand and sympathize with the child's emotions. If crying or anger or fearfulness is laughed at or punished or ignored, children may grow up shy, withdrawn, and unable to express emotions in a normal way. If parents are patient and kind when a child is struggling with strong emotions, the child is more likely to grow up happy and well balanced.

Young children sometimes appear to lie because they cannot yet tell the difference between the real world and the world of the imagination.

When a child does something wrong or unacceptable, it should be pointed out firmly but calmly that this is not the way to behave. Simple and reasonable explanations should be given. Children remember explanations and rules given to them by adults whom they love and wish to please. Gradually they come to accept these examples and explanations as the basis for their own actions. It is in this way that the child comes to have a conscience and to understand the difference between right and wrong.

Crying is a young child's way of saying that something is wrong. Maybe the child is hungry, or tired, or in pain or discomfort, or too hot or too cold, or has been startled, or needs to be held and cuddled. Crying should not be ignored.

Some babies cry a lot and nothing seems to comfort them. Usually, this kind of crying begins at the age of three or four weeks and often happens at the same time each day. This may go on for up to three months. The cause of this kind of crying is not known. It does not seem to harm the child.
Children need frequent approval and encouragement.

ဗီဒီယိုများကို အရေးပါသော အရေးအနှုတ်များ နောက်ဆုံး ကြည့်ရှုသော မှတ်ရှိတာ အရေးအနှုတ်များ အုပ်ဆောင်သည်။

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• young children soon outgrow their fears if they have confidence that their home is safe and that they are loved and protected by their parents or other familiar adults.

5. Children need frequent approval and encouragement.

• If parents show approval of a child’s behavior, this encourages a child to be good. So it is important for parents to look out for good behavior and to show their pleasure and approval. This is a much better way of teaching a child to behave than constant criticism, shouting, and punishment.

• Parents should show their delight when a child learns a new skill, however small. If the child receives no encouragement, or too much criticism, the desire to learn and develop new skills is reduced.

• Physical punishment is bad for children. It makes children more likely to grow up being unreasonable and violent towards others. It can also make children frightened, and this can destroy the child’s natural desire to please and to learn from his or her parents and teachers.

6. The foundations of learning well in school can be built by the parents in the earliest years of a child’s life.

• In the earliest years of life, parents can help build the foundations for successful learning in school. From birth, a child who feels loved, secure, and approved of is more likely to have the desire and the confidence to learn rapidly.

Parents can also help a child to learn by playing.

All children need simple play materials so that there is always something to do or to explore at each new stage of the child’s development. This do not cost a lot of money. Water, sand, cardboard boxes, containers, wooden building blocks, safe household items, objects of different colors, a ball and many traditional playthings are just as good as shop-bought toys. Whenever it is possible and safe, children should be allowed to make their own decisions. They learn best from their own successes and their own mistakes. Parents should try to guide but not control the child’s play.

Preschool and child-care programs can help prepare a child to learn well at school - if they provide lots of care and attention and a variety of play activities to help a child develop skills.

Too much pressure on a child to learn and to do well in school is not helpful. Teaching things like reading and writing and numbers at too early an age is like trying to build the top of a building first. Like a building, a child’s capacity for learning grows in stages, each stage built upon the last. The child learns best if parents and school teachers provide the
Traditional play things are as good as shop-bought toys.

"Play is the work of the child and playthings are the tools of the child." - Arnold Gesell

- Play provides physical activity, which is essential for healthy development.
- Play helps in the development of fine and gross motor skills.
- Play is a way for children to express their emotions and thoughts.
- Play fosters social skills and cooperation among children.
- Play is a way for children to learn about the world around them.

References:


Note: This document is a translation from Myanmar to English and contains extracted text.
opportunity to learn whatever is appropriate at each stage. To do this requires skill and patience. It means watching very closely and knowing when a child is becoming too frustrated or too bored. And it means constantly providing new opportunities and just the right kind of new challenges and interests for the child to continue his or her own learning process.

- Learning to speak and understand language is one of the most important and complicated tasks facing young children. They learn best if parents are constantly helping, right from birth, by talking, singing songs and nursery rhymes, pointing at things or telling stories as soon as the child is able to understand. Children are able to understand language long before they can speak.

It is possible to have ‘conversations’ with a child from the very earliest age. It does not matter how simple or babyish the conversation is. What matters is ‘bathing the child in words’. The child needs to respond to words and sounds and to see others respond to his or her own attempts at sounds and words. When a child begins to make sounds, words, and sentences, parents should show their delight and encourage the child to build on the things that have been learnt.

- Children learn to speak at different ages. In general, they begin to talk from about the age of one and can use complete sentences by the age of four. By age six, all the basics of language have usually been learned. Encouragement and practice during these first six years are very important to the child’s late success in learning to speak, read and write, and to do well at school.

- There is no difference between the physical, mental, and emotional needs of boy and girl children. Both have the same need for play and the same capacity for all kinds of learning - and both have the same need for expressions of love and approval.

7. A parent is the best observer of a child’s development. So all parents should know the warning signs which mean that a child is not making normal progress and that something may be wrong.

- Some children progress more slowly than others, and this in itself need not be a cause for alarm.

- The following is a parents’ guide to what children should be able to do at three months,

twelve months, two years, four years, and five years of age. If a child cannot do these things at the right age, this does not necessarily mean that there is a serious problem. But it does mean that the matter should be discussed with a health worker.

At three months, does your child:
turn head towards bright colors and lights?
move eyes to loud sounds?
make fists with both hands?
wiggle and kick with legs and arms?
smile?
make cooing sounds?

At twelve months, does your child:
sit without support?
crawl on hands and knees?
get up to standing position (with support)?
pick things up with thumb and one finger?
follow simple directions?
give affection?
say two or three words?

At two years, does your child:
use two- or three- word sentences?
recognize familiar people and objects?
carry an object while walking?
repeat words that others say?
feed himself or herself?
identify hair, ears and nose by pointing?

At four years, does your child:
balance on one foot?
play simple games with others?
ask questions?
answer simple questions?
show different emotions?
wash hands alone?
point to six basic colors?

At five years, does your child:
speak clearly?
dress without help?
copy a circle, square, triangle count five to ten objects?
(a) အစိတ်အပိုင်းများ

(b) အကြောင်းအရင်း

Animals should be separated from the house.

(c) အချက်အလက်များ

Boil water for drinking

(d) အဆိုပါပုံပြ

Fig. 1

Fig. 2

Fig. 3

Boil water for drinking
အောက်ပါများအသွေးအပြားအရ အသုံးပြုသူအတွက် အသုံးပြုခြင်း၀င်မှုကို အကြောင်းအရင်းများပါ၀င်သည်။
Environmental sanitation is essential for all humans. The more the environmental sanitation system improves, the higher the standard of community health. The facts to note in environmental sanitation are:

1. **Water for drinking and use**

   Water for drinking and use is essential to the survival of humans. One can contract skin diseases through the use of water. Similarly, the diseases can be conveyed due to lack of environmental sanitation with a consequent increase in the number of mosquitoes and flies. The water for use should be systematically utilized and disposed of.

   Water-borne diseases can be prevented by drinking boiled water.

   The community should be provided with health education which emphasizes the importance of protecting the source of water supply against contamination by sewage and refuse.

2. **Use of latrine**

   Every family should have a latrine. People should be taught how to use a latrine properly. It should be well-protected from flies. It must not be near the sources of water supply.

3. **Domestic animals**

   The place for animals should be separated from the house and their excreta should be disposed of properly. By providing a plan to prevent contamination of wells by animal excrement, it can keep the environment free of pollution, and provide safe water for drinking and use.

4. **Refuse disposal**

   Every person should practice systematic refuse disposal. A large pit (dumping area) should be dug near the house. Putting a cover over the pit will guard against mosquitoes, flies, rats, and cockroaches. They are the vectors of microorganisms and parasites which cause diseases. The refuse should be incinerated weekly. The location of refuse must be far away from the sources of water supply, which can give rise to better environmental sanitation. By improving the system of water supply, toilets, raising domestic animals and refuse disposal, not only will environmental sanitation be better, but also the community can also rid itself of contagious diseases, water-borne diseases, and the diseases caused by mosquitoes, flies, and microorganisms.
Malaria Task Force (MTF) NEWS

This is the first ‘MTF News’ since Health Messenger is again being distributed.

For the ones who do not know the Malaria Task Force, a short introduction:

The Malaria Task Force (MTF) has been created in response to a specific need: the control of malaria on the Thai Burmese border. Its operation started in 1995. The medical organizations (NGO’s) involved are: AMI, ARC, IRC, MHD, MSF and the Shoklo Malaria Research Unit (SMRU). The SMRU is conducting a research program since 1986 to define the epidemiology, prevention and treatment of malaria in the displaced communities living on the Thai-Burma border. The MTF is acting as a center of information and exchanges between the NGO’s, the SMRU and the Thai Public health (including the Unit for Vector borne Diseases Control, Malaria Division). The role of the MTF is to collect data on malaria from all refugee settlements, analyze them and feed back the information to the NGO’s working in the camps. The data are collected weekly to provide an early detection system for epidemics.

The MTF also provide technical support to the NGO’s for their program of malaria control and in case of epidemics. The MTF insures the quality control of the laboratories of the NGO’s that request it. The MTF organize meeting every six months for the expatriate and local staff of the NGO’s to update the guidelines on various aspects of the malaria control program such as: vector control, laboratory techniques, treatment protocols.

Why is malaria a specific problem on the Thai-Burma border?

In general, Malaria is the most important parasitic of man. Nearly half of the world population is living in malarious areas. Worldwide it causes the death of two millions people every year.

Specifically, The World Health Organization acknowledges that malaria is globally on the increase and that the main reason is the ability of the parasite to become resistant to the drugs used against it. It is Thailand where the emergence of multi-drug resistance was first reported. It is on the Thai-Burma border where the world most resistant malaria is found!

With the MTF News we hope to inform and teach you on malaria. Please feel free to contact us if you have remarks or questions.

Daniel & Stephane
Malaria Task Force
Mae Sot Thailand
The Drum Publication Group was founded in 1998. The goal of the Drum Publication Group as an independent group, is to promote literature in both Karen and Burmese languages with the overall objectives of developing education for Burmese people where they might reside.

The group wishes to establish contact with as many other groups and individuals as possible who are involved in literature and education, and to be involved in all aspects of curriculum development work and the ensuing massive work of printing suitable text books and teaching aids.

A catalogue of our printed books is available to those who are interested.

- 96/01 Saw Wah Gets Diarrhea
- 96/02 Saw Tay Khoo and Saw Tayler go to Fetch water
- 96/03 Primary school Teachers guide book for teaching health education
- 97/01 How your body works
- 97/02 Why is Naw Htee Shgee Crying? what illness is she suffering?
Glossary

kwashiorkor အခြားရောင်တွေ့စရာ
marasmus အခြားရောင်တွေ့စရာ
malnutrition အခြားရောင်တွေ့စရာ
xerophthalmia ပျစ်ဆောင်သောကြြွေး
Rickets အခြားရောင်တွေ့စရာ
rbc's hemolysis အခြားရောင်တွေ့စရာ
(red blood corpuscles hemolysis)
osteomalacia အခြားရောင်တွေ့စရာ
pellagra စိုးရိမ်ကဲ့သော ပူးပေါင်းတွေ
tetany အိုးအားဖြင့်အခြားရောင်တွေ့စရာ
simple goitre စိုးရိမ်ပါသောကြေင့်
dwarfism အပေါ်ကိုလောင်သောကြေင့်
meconium အပေါ်ကိုလောင်သောကြေင့်
C.P.R ကြေင့်ကိုလောင်သောကြေင့် (Cardio Pulmonary Resuscitation)

Answers for issue 4

1.b 2.a 3.a 4.a 5.a
6.b 7.a 8.a 9.f 10.a