

# Paediatric cardiac care in Bangladesh: what you need to know

PROF DR MANZOOR HUSSAIN

Like other developing countries, Bangladesh is facing a multitude of health problems. Paediatric heart problem is one of them. Heart diseases in children are of two types, one is congenital, and another is acquired. Congenital heart disease (CHD) is a defect in the structure of the heart or great vessels that is present at birth. CHD includes septal defects, defects in heart valves and vessels. Acquired heart diseases are defined as the conditions affecting the heart and its associated blood vessels that develop after birth. It includes myocarditis, cardiomyopathy, heart failure, hypertension, syncope, rheumatic heart disease, and so on.

There has been an enormous success in prevention and control of vaccine-preventable and infectious diseases in Bangladesh, including a successful fight against rheumatic fever and rheumatic heart disease. Congenital heart disease is diagnosed every 8 per 1000 live births. So more than 40,000 children are born with CHD every year in Bangladesh. Many of the CHD patients require surgery or catheter intervention in the early period of life and responsible for more deaths than any other type of malformation.



Symptoms of CHD may include bluish baby just after birth in spite of giving oxygen, bluish discolouration of skin and nail bed, tiredness during feeding or playing, repeated attack of pneumonia, poor growth, palpitation and chest pain etc. Due to the lack of facility and awareness, there is increased morbidity and mortality from CHD.

Resource limitation adds to the magnitude of this problem. About half of the affected babies with CHD fail to reach their first birthday due to a lack of proper management. Too often, referrals are delayed because of ignorance or limited knowledge of CHD or its natural history, inaccurate diagnosis and lack of awareness about available facilities.

Treatment is available only in few tertiary level hospitals in Bangladesh. Dhaka Shishu Hospital Paediatric Cardiac Centre is one of them. National Institute of Cardiovascular Disease, National Heart Foundation, Combined Military Hospital Dhaka and Ibrahim Cardiac Centre also has the facility to treat paediatric cardiac patients.

In developed and developing countries, there is a wide gap regarding paediatric cardiac care. Absence of paediatric cardiac centres, presence of cardiac centres only in large cities and the absence of specific health care policies in various countries are the reasons for this variation. Scarcity of paediatric cardiac care in public hospitals, the expense of treatment in private hospitals, lack of resources and trained personnel in this field and lack of awareness are the primary reasons due to which treatment of heart diseases is currently out of reach for a majority of children in Bangladesh. Due to a lack of resources, cardiac care inadequacy cannot be solved within a short period.

Awareness should be created regarding congenital and acquired heart diseases along with increased facility for prenatal diagnosis, routine newborn examination and screening, early identification of congenital and other acquired heart diseases and referral to specialised cardiac centres, development of skilled paediatric cardiac care professionals and logistics is necessary to improve paediatric cardiac care in Bangladesh.

The writer is the Head of Paediatric Medicine and Paediatric Cardiology at Bangladesh Institute of Child Health and Dhaka Shishu Hospital.

## CHALLENGES

### Urgent health challenges for the next decade

As a new year and a new decade kick-off, the World Health Organisation (WHO) is releasing a list of urgent, global health challenges. This list reflects a deep concern that leaders are failing to invest enough resources in core health priorities and systems. This puts lives, livelihoods and economies in jeopardy. Public health is, ultimately, a political choice.

Countries invest heavily in protecting their people from terrorist attacks, but not against the attack of a virus, which could be far more deadly, and far more damaging economically and socially.

This means advocating for national funding to address gaps in health systems and health infrastructure, as well as providing support to the most vulnerable countries. Investing now will save lives – and money – later. There are no shortcuts to a healthier world. 2030 is fast approaching, and we must hold our leaders accountable for their commitments.

The challenges are not listed in order of priority. All are urgent, and many are interlinked.

1. Elevating health in the climate debate
2. Delivering health in conflict and crisis
3. Making health care fairer
4. Expanding access to medicines
5. Stopping infectious diseases
6. Preparing for epidemics
7. Protecting people from dangerous products
8. Investing in the people who defend our health
9. Keeping adolescents safe
10. Earning public trust
11. Harnessing new technologies
12. Protecting the medicines that protect us
13. Keeping health care clean

### Could your morning coffee be a weight-loss tool?



If losing weight sits high atop your New Year's resolution list, you might want to reach for a piping-hot cup of coffee. Why? New research, published in the American Journal of Clinical Nutrition, suggests that just 4 cups of coffee a day can help shed some body fat.

Investigators initially set out to see if coffee could help lower the risk for type 2 diabetes risk by reducing the risk for developing insulin resistance, which can lead to dramatic spikes in blood sugar and, ultimately, diabetes. Those who drank 4 cups of caffeinated coffee per day over six months saw a nearly 4% drop in overall body fat.

"We were indeed surprised by the observed weight loss that was specifically due to fat mass loss among coffee drinkers," said study author Derrick Johnston Alperet, a postdoctoral fellow in the Department of Nutrition at the Harvard T.H. Chan School of Public Health. He and his colleagues think that coffee-fueled fat loss may be the result of a "metabolic reaction," in which caffeine causes the drinker's metabolic process to ramp up. The end result, said Alperet, is the burning of more calories and a notable drop in body fat.

Source: WebMD

## HEALTH bulletin



### Real-time flu prediction may be possible by using wearable tracking devices

The research, published in The Lancet Digital Health journal, demonstrates the potential of data from wearable devices to improve surveillance of infectious disease. Resting heart rate tends to spike during infectious episodes. Wearable devices such as smartwatches and fitness trackers, that track heart rate captured the data.

Influenza results in 650,000 deaths worldwide annually. Approximately 7% of working adults and 20% of children aged under five years get flu each year. Traditional surveillance reporting takes 1-3 weeks to report, which limits the ability to enact quick outbreak response measures – such as ensuring patients stay at home, wash hands, and deploying antivirals and vaccines.

This is the first time heart rate trackers and sleep data have been used to predict flu, or any infectious disease, in real-time. With higher volumes of data, it may be possible to apply the method to more geographically refined areas, such as county or city-level.

## What can you do for men's hair loss?

TAWHID ISLAM

Enormous hair-fall is a common problem of both men and women, but men are the most vulnerable to being bald. According to The Journal of Clinical Endocrinology and Metabolism (JCEM), a masculine hormone called testosterone acts as the main culprit for this. Though testosterone itself is not the reason for being bald, the conversion of testosterone to dihydrotestosterone is the fact.

#### Hair life cycle

The hair growth or its life cycle has three stages. Anagen - active growth phase lasts 2-8 years. 90-95% hair follicles stay at anagen phase. Catagen - transition phase lasts 4-6 weeks. Telogen - resting phase, hair falls out in this stage. Each strand of hair has its stage of development. The hair growth rate is about 1.25 cm/month or about 15cm/year. Normally, more than 100 hairs may fall out every day, which is not ominous.

**Effect of Dihydrotestosterone** Dihydrotestosterone (DHT) harms hair growth. The hair follicle turns to shrink for binding DHT to cell's receptor site. It prevents the hair follicle from getting necessary nutrients for rapid development. As a result, at first, the hair life cycle is altered and cause regular shedding with thinner hair strands production. Finally, hair growth stops. Surprisingly, according to research, DHT is the main liable substance for about 80% of hair loss in men and may cause complete baldness.

#### Medication

According to the British Journal of Dermatology, minoxidil stimulates hair growth. Another research, published on JCEM, claimed that minoxidil with finasteride provide better blood flow to the hair follicle and lag the DHT formation respectively. But a pregnant woman or women want to conceive should avoid finasteride for the betterment of baby.



In case of excessive hair fall or hair thickness of women can be recovered if one can provide proper blood flow and nutrients towards the hair follicle cell. A study shows the formulation of minoxidil with 5% azelaic acid and retinol provides promising result in the case of women's hair fall. In Bangladesh, minoxidil is available as 2% and 5% as spray or lotion manufactured by several pharmaceuticals.

#### Nutrients for better hair growth

Some vitamins and nutrients deficiency may cause excessive hair fall as well, such as vitamin A, B, C, D, E, protein, omega-3 or 6, iron, zinc etc. It is possible to get these nutrients from the supplement but getting nutrients from natural sources is preferable. Eggs are a great source of protein, biotin and zinc. Berries contain vitamin C and antioxidants). Spinach is rich in folate, iron, vitamins

A and C. Fatty fishes contain omega-3 and omega-6 fatty acids as well as antioxidants. Nuts are rich in vitamin B, E, zinc and essential fatty acids.

Taking care of your hair by having a healthy diet and proper care will almost certainly give you a better looking and healthier hair for a prolonged period.

The writer is a student of Pharmacy at Bangabandhu Sheikh Mujibur Rahman Science and Technology University. E-mail: tawhidislam2021@yahoo.com

### Forum for blood cancer survivors organised at Apollo Hospitals Dhaka

A patient forum for the blood cancer survivors was organised at the Apollo Hospitals Dhaka recently, says a press release. Survivors who were cured by autologous and allogeneic bone marrow transplant and chemotherapy shared their experiences.

Dr Abu Jafar Mohammed Saleh, Consultant and Coordinator, Department of Haematology and Stem Cell Transplant, Apollo Hospitals stated that Apollo Hospitals Dhaka is the first private hospital to have introduced the treatment of bone marrow transplant.

Apollo provides myeloma, lymphoma and leukaemia patients with bone marrow transplant treatment through the autologous process.

f b /StarHealthBD

## Dry Skins: Causes & Remedy

#### WINTER WEATHER

When the temperature drops, the humidity level plunges too. Dry air leaves skin parched  
*Install a humidifier at home*

#### AGING

As hormone levels change over the years, skin becomes thin and parched  
*Keep a bottle of lotion next to bed so it's the first and last thing you use each day.*

#### IRRITANTS

Lots of everyday fabrics and products can irritate skin- from dryer sheets to perfume  
*Keep a bottle of lotion next to bed so it's the first and last thing you use each day.*

#### STEAMY SHOWERS

Setting the shower too steamy soothes your body, but it doesn't do any good to skin  
*Dial down the shower temperature to lukewarm, and keep showers short.*

#### THE RUB-DOWN

Friction strips the skin and enhances the dryness  
*Use hands or a soft washcloth instead*



#### YOUR HEALTH

If your skin is especially scaly & red, It could be a skin condition, like atopic dermatitis or psoriasis. It can also be a symptom of diseases such as diabetes or can underactive thyroid gland  
*Visit your dermatologist immediately*



In Search of Excellence