

All About MENOPAUSE



World Health
Organization



All About Menopause

First Edition

Edited by

Piyusha M Atapattu

MBBS MD MSc FRCP

Published by



In partnership with



**World Health
Organization**



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Preface

Menopause is an important event in a woman's life occurring around 50 years of age, marking the end of the reproductive life in a woman. Her ovaries stop producing oestrogen hormone which may lead to several complaints and health problems. With the life expectancy of women nearing 80 years, many women live over one third of their lives after menopause. Most problems associated with menopause can be managed by simple lifestyle measures or medical assistance. It is thus essential that women become aware about menopause-related health and take necessary steps to remain healthy, if they are to enjoy a productive and a happy life after menopause.

The Menopause Society of Sri Lanka has taken the initiative in educating Sri Lankan women on menopause, so that they are able to understand this life event, and are able to prevent and manage health issues related to menopause, enhancing their quality of life. Public education via mass media, public seminars and health journals was done over the years, though a book on menopause for the public did not become a reality until now.

This book contains much-needed information on the main health issues encountered in midlife and beyond, and has 10 short chapters discussing real-life scenarios. After the initial introduction, common gynaecological, medical and psychological problems and cancer risk are addressed, while less discussed areas such as pregnancy, family planning and sexuality at midlife are also explained in a reader-friendly manner. Several Sri Lankan experts on midlife health in women have contributed in writing the book chapters and explaining the health issues in a simple and interesting way. Sinhala and Tamil translations of this book are in the process of being completed and are due to be launched shortly.

The Menopause Society of Sri Lanka hopes that this book will be useful in enhancing the quality of life of post-reproductive women.

May menopause mark the beginning of a better life for Sri Lankan women!

Piyusha M Atapattu

Editor

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The Menopause Society of Sri Lanka wish to thank all who contributed in numerous ways to this book. We especially acknowledge with gratitude Dr Nilmini Hemachandra from the World Health Organization, who highlighted the necessity of a book on menopause for the public. We would also like to thank the World Health Organization and the United Nations Population Fund for partnering with the Menopause Society of Sri Lanka to publish this book. Special thanks are extended to all the authors of the book chapters for a job well-done, and the council members of the Menopause Society of Sri Lanka for all the support extended.

What is Menopause?

Leela who has just turned 52 years has been complaining of feeling tired with a vague headache on and off. She also has feeling of warmth and increased sweating lately.

One day she and her husband Ananda, visited their family doctor. Leela complained "Doctor, since my periods became less, I start feeling warm in the head, neck and top part of the body several times a day and I sweat a lot when this happens. I have to fan myself or sprinkle cold water. Even in the night I get these problems and feel like opening the windows, but my husband is uncomfortable with it."

Her husband added "Yes its true. And not only that, Leela is not the same woman now. For the slightest thing she gets angry, and she shouts at the children for nothing. She often cannot sleep well at night and doesn't want to sleep in my bed".

The doctor understood what was wrong, and started explaining about menopause.

What is menopause?

Menopause is a biological process occurring in women and marks the end of the reproductive period and beginning of the post reproductive phase. Menopause is the permanent stoppage of periods due to non production of eggs from the ovaries.

***Menopause is a natural
phenomenon
And
NOT a disease!***

It usually occurs at the age of 50 years, but can vary from late forties to early fifties.

How is menopause diagnosed?

It is diagnosed when a woman has no periods for twelve months after ruling out other causes. Doctors would rule out other causes like pregnancy, breast feeding, use of long term contraceptives and thyroid disease by conducting a medical history and examination.

What happens at menopause?

As women reach their late thirties, the production of eggs in the ovaries decline. Oestrogen, the main hormone produced by the ovary too is reduced, leading to many changes in the body.

The earliest is a change in the menstrual cycle pattern. Periods may become heavier, lighter or less frequent, and eventually stops completely.

As Oestrogen affects nearly all the organs of a woman's body, its deficiency will result in many changes and symptoms. Thus there will be changes in the reproductive system, urinary tract, heart and blood vessels, bones, breast, skin, brain, muscles and even fat.

What are the problems associated with menopause?

- **Hot flushes**

More than 50% of women experience hot flushes which may start a few years before the final menstrual period and continue for several years after menopause. They have a sudden feeling of warmth in the face and chest lasting a few minutes, which recurs after a short time. It is often associated with sweating and sometimes headaches. Some women find them intolerable as it may affect their day to day work. Hot flushes occurring in the night may interrupt sleep, making women feel tired and irritable during day.

- **Osteoporosis**

As we all age, bones get weaker. Bone loss gets accelerated after menopause causing osteoporosis. It is a silent disease and predisposes women to fractures of the spine, hip, and long bones. Spine fractures cause the vertebra to collapse which may gradually cause backaches, loss of height, or spinal deformities such as stooped posture. Fracture of the neck of the long bone of the thigh (commonly called 'hip fracture') is a serious condition as many die afterwards due to life threatening complications.

- **Changes in skin and hair**

Loss of fatty tissue and collagen makes the skin dry, thin and wrinkled. Hair becomes dry and brittle and there is hair loss. As the body continues to produce the male hormone testosterone, hair in upper lip, chin and upper chest may be noticeable.

- **Changes in body shape**

There is a change in fat distribution, as fat from the breasts and upper thigh gets deposited in the abdomen. Breasts become smaller and start sagging. Muscle mass becomes less and muscles become weaker. However, there is weight gain, mainly around the waist which affects their positive body image. Excess fat in the abdomen is also a risk factor for high blood pressure, diabetes, heart disease and some types of cancers.

- **Risk of heart attacks and stroke**

In younger women, oestrogen helps prevent heart attacks. Low oestrogen after menopause causes changes in the blood lipids, and lipids deposit in the walls of blood vessels leading to plaque formation and blockage. This can result in heart attacks and strokes specially in women with high blood pressure and diabetes.

- **Changes in the genital organs**

Vaginal atrophy and reduced elasticity leads to diminished sensation and reduced sex drive. Sexual intercourse may be associated with pain and bleeding. This can lead to marital disharmony.

Prolapse of the womb through the vagina may occur especially in women who had birth trauma at childbirth, or women with constipation, chronic cough and obesity. They may feel that there is a lump in the vagina or protruding out of the vulva.

- **Problems in passing urine**

Some women feel a frequent sudden urge to pass urine, and may leak urine when coughing, laughing, running or walking causing social embarrassment. Often they make frequent visits to the toilet at night to pass urine. They can experience a burning pain when passing urine due to recurrent urinary infections.

- **Changes in the brain**

Hormonal changes due to menopause may cause excessive irritation, anxiety, depression or poor memory and concentration. Some tend to forget where they kept certain items or names of people or places. Poor concentration may also cause problems at work or home. Severe dementia due to Alzheimer's disease at late years is more common in women than in men.

- **Other complaints**

Some menopausal women complain of other symptoms like fatigue, weakness and joint pain. Dry eyes causing irritation and dry mouth causing difficulty in chewing food and swallowing are other complaints.

What can be done for these problems?

- Get educated about menopausal problems.
- Improve lifestyle.
 - o Exercise regularly.
 - o Practice healthy eating consisting of a well balanced diet which includes vegetables, fruits, whole grains, unsaturated fats, and calcium rich foods.
 - o Get enough sleep.
 - o Avoid tobacco and alcohol.
 - o Avoid stress.
 - o Practice hobbies –eg. gardening, reading, yoga, guided meditation.
- Visit a well-woman clinic, gynecology clinic or see the family doctor or a government doctor.
- Get specific treatment when necessary.
- Use medicines prescribed by a doctor when simple measures do not relieve symptoms.
- Have regular check-ups to identify general health problems, fracture risk and screen for cancers, specially of breast (mammogram) and cervix / neck of womb (Pap smear). Practice regular self examination of the breast.

By preventing menopausal problems and early detection of diseases, menopausal women can keep healthy and have a better quality of life.

After the visit to the doctor Leela and Ananda were both happy. They understood what was happening and made simple lifestyle changes. Loose cotton dresses, fanning and drinking cool water helped with hot flushes. Ananda was more understanding and helped Leela to relax when she became anxious and irritable. Their diet became healthier and the whole family happily started to go out to exercise. Leela used the hormone tablets prescribed by the doctor for a few months, but by this time she felt much better and didn't need treatment. Leela also started helping her friends who were experiencing similar problems.

What is this lump bulging out from the Vulva?

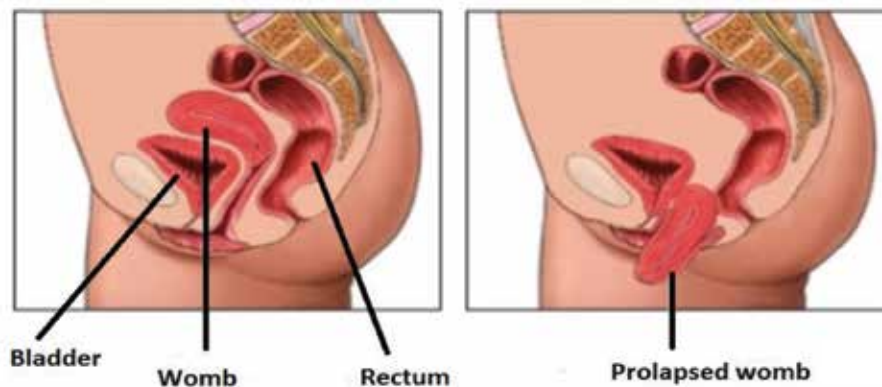
Shanthi, a 60-year-old lady presented to the gynaecology clinic with a lump in the vulva. She is a housewife and has four children, who were all born normally. She is worried about the lump especially as it affects her day-to-day activities.

What is pelvic organ prolapse?

Organs within the women's pelvis are uterus, bladder and rectum. These organs are normally held in place by ligaments and muscles forming the pelvic floor.

If these support structures are weakened by overstretching, the pelvic organs bulge from natural position into vagina. This is called pelvic organ prolapse.

Prolapse is very common. Mild prolapse does not cause problems. Treatment is not always necessary.



What are the symptoms of pelvic organs prolapse?

- Mild prolapse - usually no symptoms
- Lump at the vulva
- Backache
- Feeling of heaviness or dragging discomfort inside the vagina
- Leaking urine when coughing, laughing or lifting heavy objects
- Difficulty in passing urine or feeling of incomplete bladder emptying
- Low back pain, constipation or incomplete bowel emptying

What increases the risk of prolapse?

- Pregnancy causes weakening of pelvic floor and prolapse (Especially with a large baby, difficult or prolonged childbirth, multiple pregnancies)
- Old age and menopause
- Obesity and being overweight
- Constipation
- Chronic cough
- Lifting heavy weights
- After removal of the womb
- Natural tendency

What are the different types of prolapse?

- Anterior wall prolapse (cystocele) – prolapse of bladder
- Posterior wall prolapse (rectocele) - prolapse of bowel
- Uterine prolapse - prolapse of womb
- Vault prolapse after hysterectomy - prolapse of top of vagina

What are the treatments available for prolapse?

- Mild prolapse may only need exercises to strengthen the pelvic floor muscles. Lifestyle changes are necessary to prevent worsening of the prolapse. Hormone treatment with oestrogen as tablets or creams and gels are helpful.

Lifestyle changes

- Lose weight if you are overweight
- Stop smoking
- Avoid high impact exercises (eg. running, hopping, jumping rope, skipping)
- Avoid or get treatment for risk factors (eg. avoid lifting heavy weights, get treatment for chronic cough or constipation)

Pelvic floor exercises

- Identify the pelvic floor muscles. You can do this by trying to stop urination while passing urine. The muscles that stop urine flow are the pelvic floor muscles
- Now that you know the muscles you can do the exercises while you are relaxing in any position
- Contract these muscles and hold for 5 seconds. Then release for 5 seconds
- Repeat this 10 times, 3 times a day

- When a prolapse is large and causes symptoms affecting quality of life, it can be treated using either vaginal pessaries or surgery.
 - Vaginal pessary
 - o This is a rubber or silicone ring shape to hold the prolapse in place
 - o A pessary is very useful if you
 - do not wish to have surgery
 - plan to become pregnant in the future
 - have medical conditions that make surgery risky
 - Surgery
 - o Surgery is done if the pessary is not effective, uncomfortable or is affecting sex life
 - o The type of surgery depends on the type of prolapse (eg. vaginal hysterectomy and repair or correction of cystocele and rectocele)



Shanthi was found to have a large prolapse. She underwent surgical treatment and soon recovered. She was very happy and continued to adhere to good lifestyle changes.

I leak urine when I sneeze or cough. Can you help me?

Fathima, a 45-year-old mother of three children, is having leakage of urine when she sneezes or coughs. She noted this for several months, but kept this a secret. Later she revealed this to a friend who encouraged her to see a gynaecologist.

What is urinary incontinence?

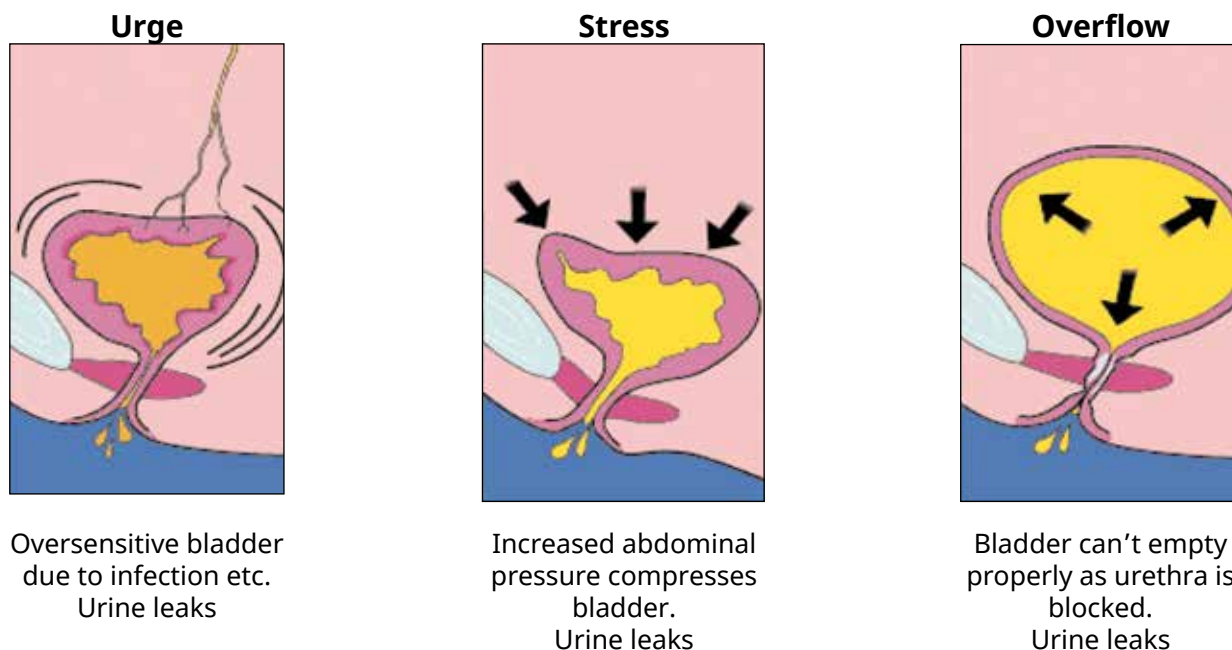
- Passing urine without control is called urinary incontinence or leaking of urine. This is not a disease, but it is a symptom or a complaint because of an underlying problem.
- This occurs in almost 1 in 2 women after menopause.
- This is not a life-threatening condition, but it severely affects all aspects of a woman's quality of life.
- It may occur during coughing, sneezing or even laughing.

Why does this happen?

- Normally the bladder relaxes when it fills and contracts when it empties. Urine flows out through the urethra when the bladder empties when passing urine. The bladder wall and urethra have muscles.
- When the bladder fills with urine, the bladder wall muscles (detrusor muscle) relaxes, allowing it to fill, whereas the muscles in the urethra contract, stopping the escape of urine through it.
- When you want to pass urine, the bladder wall muscles (detrusor muscle) contracts, allowing the bladder to empty, whereas the muscles in the urethra relax, allowing the urine to flow through it.
- Urinary incontinence occurs when the above does not occur smoothly during the filling and emptying of the bladder.

What are the common types of urinary incontinence?

- Overactive bladder (urge incontinence)
- Genuine stress incontinence (GSI)
- Mixed incontinence (combination of above two conditions)
- Retention with overflow



What are the causes of urinary incontinence in older women?

It can be caused by many reasons. However, urinary incontinence is not always preventable.

- **Childbirth** - Pregnancy and vaginal childbirth leads to a weakening of the muscles needed for bladder control and damages the bladder nerves and supportive tissue. Because of this the bladder, rectum, small bowel and womb can bulge into the vagina from their normal position. These protrusions are associated with incontinence. Having many children or having large babies by normal and assisted vaginal delivery makes women more prone to urinary incontinence.
- **Menopause and ageing** - With ageing, weakened bladder muscles reduce the bladder's capacity to store urine. This leads to frequent involuntary bladder contractions and incontinence. Oestrogen is needed to make the lining of the bladder healthy, and low oestrogen after menopause make women more prone to urinary incontinence.
- **Obesity** - Extra weight puts pressure on the bladder and the surrounding supportive muscles and causes leaking of urine coughing or sneezing.
- **Recurrent urine infections** - These irritate the bladder and women can have a strong urge to urinate with incontinence.
- **Diet and Drugs** - Certain foods, drugs and medications stimulate the bladder and increase urine volume. Examples are alcohol, caffeine, carbonated drinks, artificial sweeteners, spicy food, sugar and high acid like citrus fruits, drugs used for heart problems and blood pressure, sedatives and muscle relaxants.
- **Constipation** - The rectum is located near the bladder and it shares the same nerves that innervate the bladder. When the rectum is filled with hard compacted stools these nerves become overactive and causes urinary incontinence.
- **Neurological illness and diabetes**

What are the implications of urinary incontinence?

- Negative impact on quality of life, as it affects personal life, sexual life and social life.
- Skin problems around the vulval area due to persistent urine leak (eg. skin excoriation, soreness, and repeated infections)
- Recurrent urine infections

How is this tested?

- Examination of mid-stream urine sample
- Frequency – volume chart
- Pad test
- Urodynamic studies

How is urinary incontinence treated?

Treatment depends on the type and severity of the condition. If the condition is mild, lifestyle modifications are enough.

What are the lifestyle changes that will help?

- Maintain a healthy weight
- Avoid foods and medications that irritate the bladder (eg. coffee, alcohol and acidic foods)
- Prevent constipation by a high-fibre diet and drinking plenty of fluid
- Practice pelvic floor exercises

What if lifestyle changes don't work?

- Your doctor will be able to help you, as there are many other ways to treat urinary incontinence.
- You may need to practice bladder drills or pelvic muscle training, use medications or undergo surgery or other procedures.

The main thing is to seek help as treatment is available!

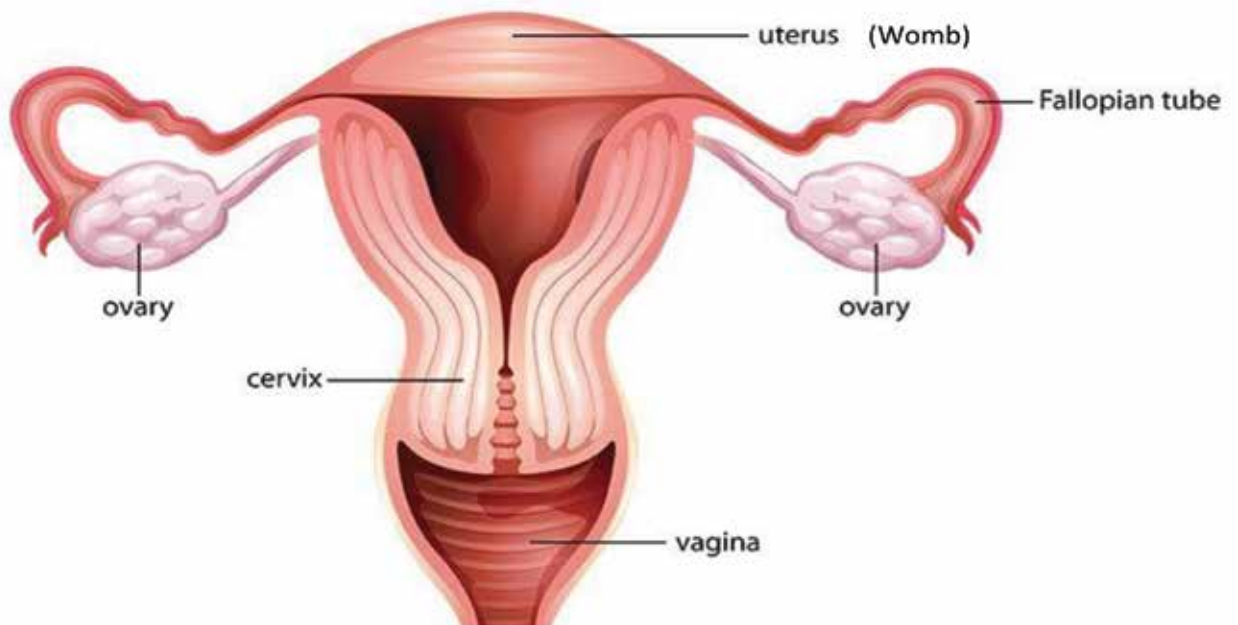
Fathima, went to see a gynaecologist who explained what needs to be done. With treatment her incontinence became better, and she was very happy that she could lead a good social life.

Do I have cancer?

Subodha was a talented mathematics teacher working in a leading school at Colombo. After 30 years of long service to the school she was busy getting ready for her retirement party. However, a week before the party, she suddenly collapsed in the classroom and was admitted to the hospital. It was found that she had been having irregular and heavy vaginal bleeding over the past few weeks, which had led to her collapsing in the classroom. She had not sought treatment as she had thought this was normal for her age.

She underwent several tests in the hospital and was diagnosed with womb cancer. Soon after, she had surgery to remove her womb and she was told that the cancer was cured. She was relieved and her friends and family who visited were very happy for her.

Around the time of menopause at the age of 45-55 years, many changes take place in the reproductive system of a woman. These may be associated with changes in the menstrual cycle. However, such changes should not be attributed to menopause alone, as cancers in the reproductive system can also cause these changes in the menstrual cycle.



Reproductive system of a woman

What are the changes occurring in the menstrual cycle during menopause?

- Monthly bleeding pattern becomes irregular.
- Duration of cycles become longer or shorter.
- Heavy vaginal bleeding.
- Vaginal bleeding or spotting in between normal menstrual cycles.
- Vaginal bleeding after sexual intercourse.
- Vaginal bleeding PV after cessation of periods.

What are the causes of abnormal periods around menopause?

Menstrual irregularities most often happen due to non-cancerous (benign) conditions.

Eg:

- Thickened womb cavity lining due to hormonal changes.
- Small polyps or lumps inside the womb or neck of the womb.
- Thinning of the womb lining due to lack of female sex hormones.
- Lumps in the womb due to fibroids or adenomyosis.

It is very important to consult a doctor, especially a gynaecologist, when there are irregularities in the menstrual cycle.

Can cancers in the reproductive system or breast be completely cured?

YES! Cure is possible if the disease is recognized early.

How would you recognize cancers in the reproductive system early?

Cancer of the neck of the womb (cervical cancer)

What are the symptoms of womb neck cancer?

- Blood stained foul smelling vaginal discharge.
- Vaginal bleeding after sexual intercourse.
- Vaginal bleeding between menstrual cycles.

Early stages of womb neck cancers can be detected by a Papanicolaou (PAP) test. This test could be done every 3 years from the age of 35 to 55 years.

Womb cancer

What are the symptoms of womb cancer?

- Irregularities in the menstrual cycles.
- Pus-like vaginal discharge.
- Vaginal bleeding after cessation of periods.

Ovarian cancer

Out of all the cancers in the reproductive system ovarian cancer is the most difficult to identify early. You should get medical advice immediately if the following symptoms and signs are present.

- Abdominal distention and discomfort
- Unusual abdominal pain
- Heaviness and pain in the lower abdomen
- Swelling of both legs
- Sometimes menstrual irregularities

Vulval (perineal) cancer

How can you recognize vulval cancer?

- Unusual wound which is not getting cured in the perineum (around the vaginal opening)
- Unusual scratching around the vagina
- Discoloration of skin around the perineum

Breast cancer

How can you recognize breast cancer?

- Lump in the breast
- Blood stained nipple discharge
- Eczema like skin lesion around the nipple
- Retraction of nipples

Early stages of breast cancer can be diagnosed by a simple monthly self-examination of the breast and also by doing a mammogram at least every 5 years. Mammograms should be done more frequently if you have a family history of breast cancer.

If you any of the above symptoms do not hesitate to take medical advice.

Subodha was cured and was active 6 week later. Her school organized the missed retirement party in a grand scale, which was to also celebrate her recovery. Subodha and all her friends could now enjoy the wonderful party.

**I have developed a
non-communicable disease.
What should I do?**

62-year-old Lakshmi had retired from her permanent job. After retirement, she mostly spends her time at home. Recently, she noticed that she had a wound in a toe which is healing slowly. She consulted her family doctor who checked her blood sugar levels and blood pressure and found them both to be high. Then the doctor said "you seem to have developed a non-communicable disease". Lakshmi was not sure what he meant and was very worried, and asked several questions from the doctor.

What are non-communicable diseases?

- These are a group of diseases that do not pass from one person to other.
- They progress slowly and last for long period of time.
Eg.
 - o Obesity and overweight
 - o Heart disease
 - o Diabetes
 - o High blood pressure
 - o Cancer
 - o Stroke
 - o Osteoporosis
- Often, they need long term treatment and may lead to serious complications and disability if not treated regularly.

Am I at risk of developing a non-communicable disease?

Sri Lankan women now have an average lifespan of about 80 years. They live a significant part of their lives after menopause, which occurs around 50 years. After menopause the risk of non-communicable diseases increases in women. The chance of getting non-communicable diseases can be made less if you follow a healthy lifestyle and take proper treatment for diseases.

What can lead to non-communicable diseases?

An unhealthy lifestyle increases the risk of non-communicable diseases. Some of the key risk factors are,

- Unhealthy diet
- Inadequate physical activity
- Unhealthy habits such as smoking and harmful use of alcohol

What is an unhealthy diet?

- A diet with inadequate fruits and vegetables, but with high sugar, salt and fat form an unhealthy diet.
- They lead to weight gain, and may cause heart disease, stroke, diabetes, and some types of cancers.
- Examples of popular foods that are harmful are “short eats” (i.e., rolls, patty, pastries, maalu paan, wade), fried rice, kottu etc.
- Foods with high sugar content add too many excess calories to diet, and include biscuits, cakes, ice cream and soft drinks.
- High salt in diet increases blood pressure, heart disease and stroke.

What is a healthy diet?

- Cereal-based foods should make up half to two third of the main meal.
- At least five varieties of fruits and vegetables with minimum of 400g of them per day.
- Pulses, fish, dried fish, eggs, poultry and lean meat; about 10-15% of daily energy should be from these protein sources.
- Milk or milk products daily (e.g. 1-2 cups of fresh milk, 1-2 cup of curd/yogurt).
- Moderate amounts of fats giving 15-30% of daily energy intake. Use low-fat cooking methods (e.g. grilling, air frying, baking).
- One teaspoon of salt (< 5 grams) per day is recommended. A 400g packet of salt is enough for family of five for 20 days.
- Less sugar, sweets or sweetened drinks.
- Eat naturally occurring foods in preference to processed foods.
- Have regular mealtimes and avoid skipping meals.
- Drink plenty of water with at least 6-8 glasses per day.

What should I know about exercise and physical activity?

- Exercise and engage in a physical activity to spend the energy or calories you have taken in with your food. Regular physical activity reduces the risk of heart disease, diabetes, and some cancers, and help maintain a healthy body weight.
- It is recommended to do at least 30 minutes of moderate physical activity for 5 days a week.
- Examples of moderate physical activities are brisk walking, aerobic exercise, heavy gardening, climbing a hill.
- It is important to breathe in and out properly during an exercise session to gain the maximum benefit from the aerobic activities. A relaxed mind is also beneficial in reducing the risk of these types of diseases.

How can I know whether my body size is right?

You can do simple measurements of your body mass index and waist circumference (size) which will indicate if your body size is right.

What is Body Mass Index (BMI)?

This is a measure of body size, especially the body fat, based on height and weight.

This will determine whether the body weight is appropriate for the body height.

$$\text{Body Mass Index} = \text{Weight (kg)} / \text{Height (m)}^2$$

You can measure your height in meters and weight in kilograms and see if you have a healthy BMI. It is important to take appropriate measures to achieve a normal BMI.

Normal BMI - 18.5 - 23kg/m²
Overweight - 23-25 kg/m²

Maintain a healthy body weight through a balanced food intake and regular physical activity.

Overweight and obesity increases the risk of blood pressure, high blood cholesterol, heart disease, stroke and diabetes.

What is waist circumference (size)?

- Waist circumference is one way to determine fat stores around the belly.
- Waist circumference should be < 80 cm for women and < 90 cm for men.
- If the waist circumference is high, it can be associated with increased risk for health conditions such as high blood pressure and diabetes.

How to measure the waist circumference

- Find the top of your hip bone and the bottom of your ribs.
- Breathe out normally.
- Place the tape measure midway between these points and wrap it around your waist.

What can be done to screen for non-communicable disease?

Some changes in the body are important to decide whether you have a non-communicable disease or if you are likely to get one. They are:

- Blood pressure
- BMI and waist circumference
- Blood glucose
- Blood cholesterol

Routine check-ups of the above parameters are important. If they are not in the normal range, appropriate counseling and sometimes medical treatments are recommended.

Where are these services available?

These services are available free of charge from the closest healthy lifestyle center. The operating days and location of the closest center can be obtained from the Public Health Midwife or the Public Health Inspector of the area. Otherwise you can obtain these services from the private sector as well.

Lakshmi now knew what she should do. With healthy lifestyle practices and medical treatment soon her blood pressure and blood sugar became normal, and she was able to enjoy her retirement.

My bones are weak!

Loku Manike Iskole Hamine was a happy woman. Her chronic backache seemed to have vanished. Her son and his family had come to celebrate her 75th birthday. She was rushing around, supervising the cooking of their favourite dishes, when she slipped on some spilled water and fell in the kitchen. Though all came rushing to help she couldn't get up. She had a severe pain in her hip and could not move her left leg. She was taken to the hospital where she was diagnosed to have an osteoporotic fracture of the hip.

What is osteoporosis?

- Osteoporosis is a bone disease where the bones become thin, leading to decreased bone strength and increased susceptibility to fracture, especially of hip, spine and wrist.
- In Sri Lanka about half of the women over the age of 50 years have osteoporosis, and many get fractures.

What causes osteoporosis after menopause?

- Bone is an active tissue. They keep on growing and remodeling. Maximum bone density is reached between 25-30 years of age, after which bones become gradually thin with age.
- Oestrogen hormone is necessary for healthy bone formation. At menopause oestrogen is decreased in women and bone loss worsens rapidly, promoting osteoporosis.

Normal Bone



Osteoporotic Bone



What predisposes older women to osteoporosis?

- Being thin.
- Early menopause especially before 40 years.
- Genetic factors (especially hip fracture in mother).
- Diseases (diabetes, thyroid disease, rheumatoid arthritis).
- Medicines (long-term steroids).
- Low intake of calcium, vitamin D, protein in diet.
- High intake of fatty foods and salt in diet.
- Smoking and alcohol use.
- Lack of exercise (eg. bed-ridden patient).

What are the problems caused by osteoporosis after menopause?

- Chronic pain especially backache.
- Fractures (especially of hip, wrist and spine).
- Loss of height, and bent back.
- Immobility and loss of independence.
- Other resulting problems (eg. depression, bed-sores, pneumonia and blood clots in legs and lung).
- Many women who fracture the hip may die within a year due to many reasons.

How is osteoporosis diagnosed?

- It is important to diagnose osteoporosis early, especially before a fracture.
- Loss of height or stooping and chronic or acute backache may suggest osteoporosis.
- There are no blood or urine tests to diagnose osteoporosis.
- X rays will show thinning of bone and fractures.
- The best test is Dual Energy Xray absorptiometry (DEXA) scanning –available in major hospitals in Sri Lanka.
- Scoring methods are available to identify fracture risk (eg FRAX score) which are simple and can be done without tests. (<https://www.sheffield.ac.uk/FRAX/tool.aspx?country=45>).

How is osteoporosis managed?

- Healthy lifestyle.
- Medical treatment.

Healthy lifestyle

- A healthy lifestyle should begin from childhood and continue throughout life.
- Diet rich in calcium, vitamin D and protein.
- Regular weight-bearing exercise (eg. walking) -continue once a fracture is healed.
- Cut down salt in diet.
- Stop smoking and consuming alcohol.
- Prevent falls (to prevent fractures).

Medical treatment

- Calcium (1000-1200mg/day) and Vitamin D (800IU/day).
- Medicines that reduce bone loss or stimulate bone growth.
- Menopausal hormone therapy.

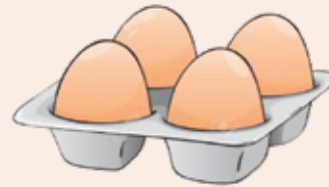
Sources of Calcium

Milk and milk products like yoghurt and curd, fish (with edible bones), pulses, and green leafy vegetables such as drumstick leaves and katurumurunga.



Sources of Vitamin D

Sunlight, Fatty fish (eg. salmon, tuna, and mackerel) fish liver oils, beef liver, cheese, and egg yolk.



Doctors treated the fracture with surgery after which Loku Menike Iskole Hamine was given medicines to strengthen the bones. She was encouraged to start walking again, and to continue physiotherapy to speed up recovery. She recovered soon, and was able to enjoy her usual lifestyle with healthy diet, and regular exercise.

Am I pregnant?

Sonali and Ajith were very worried. Sonali's period was delayed by three weeks, and she sometimes felt dizzy. They had got married young and now were getting ready for the wedding of their eldest daughter in just 3 months. Sonali was sure she was pregnant. Ajith could not believe it. They never thought Sonali would get pregnant at 48 years, and they had not been using any family planning methods for the past few years. They didn't know what to do. They thought of consulting their family doctor.

Can women become pregnant close to menopause?

- Yes, a woman can get pregnant until menopause.
- This can happen even if their periods are not regular.

Fertility declines steadily after the age of 35 years as older women have less sexual intercourse and fewer eggs are available in the ovaries. However, women do still get pregnant in their late 40s and even into their 50s.

What are the problems of an unplanned pregnancy in older age?

- Pregnancy complications such as miscarriage, high blood pressure and diabetes.
- Chromosomal problems in the baby (eg. Down syndrome).
- Social stigma and domestic violence.
- Increase in unsafe abortions (one of the leading causes of death for pregnant women in Sri Lanka).

How can an unplanned pregnancy in older age be prevented?

- Use of family planning methods should continue until menopause.
- Do not stop using family planning methods when you reach mid-life because you can still get pregnant.

- Excellent family planning methods are available for women of all ages. Some of them provide valuable additional health benefits especially in older age.
- Age is not a barrier to use any modern contraceptive methods, but the methods used in younger age may not be suitable for older women for many reasons.
- Proper instructions should be followed to get the best results.
- Traditional methods like “safe period” or “calendar method” are not recommended as menstrual irregularities are common close to menopause.

What are the family planning (contraceptive) methods available for older couples in Sri Lanka?

- Hormonal family planning methods (eg. pills, injections and implants)
- Intrauterine contraceptive devices
- Sterilization
- Condoms

- **Combined oral contraceptive pill (the ‘pill’)**

- o Suitable until the age of 50 years
- o Used only if there are no risk factors like smoking, migraine, high blood pressure, diabetes, liver disease, breast cancers and women at risk of blood clots
- o Has several advantages (eg. regulate periods, reduce blood loss and period pains, help maintain bone strength, relieves hot flushes and night sweats, protective effect on ovarian and uterine cancers)
- o Common side effects like nausea, vomiting and headache are rarely troublesome and disappear with time



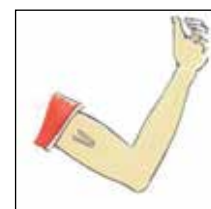
- **Progesterone injection (Depo Provera ®)**

- o Injected every 13 weeks until the age of 50 years
- o Ideal for a woman who cannot tolerate or forget to take pills
- o Most women will be free of periods at the end of the first year
- o Irregular bleeding and spotting are the most troublesome symptoms which disappear after the first 4 months
- o Weight gain may occur
- o As there is a possible increase of osteoporosis, women > 40 years at risk of osteoporosis (e.g. smoking, previous fractures, steroid use, family history) are advised to consider a different method



- **Contraceptive implant (Jadelle®)**

- o Can be used until the age of 55 years
- o Is as effective as sterilization
- o Can remain in place for 5 years
- o Most women will be free of periods at the end of the first year
- o Common side effects are irregular bleeding and spotting which settle with the time



- **Intrauterine contraceptive device (IUCD - Cu-T)**

- o Useful especially in women who are obese or cannot use hormonal methods
- o Can remain in place for 10 years
- o If inserted after 40 years, it can remain without being changed until menopause



- **Hormone-releasing intrauterine system (IUS)**

- o Highly effective
- o Minimizes menstrual pain and bleeding
- o Licensed for contraception for 5 years but if it is inserted after 45 years it can remain in place until 55 years (or until the woman reaches menopause)

- **Male and female sterilization**

- o Very suitable method
- o Most widely used by older couples
- o As it is a non reversible surgical procedure, should be done after proper counseling

- **Condoms**

- o Do not require a prescription and are widely available
- o Helps to protect against sexually transmitted infections and is the only dual protection method
- o Older women may experience vaginal dryness during intercourse and condoms may be uncomfortable without additional lubricants



- **Emergency contraception**

- o Include pills and IUCD
- o Recommended for any woman who had unprotected intercourse or contraceptive failure in the form of missed pills or split condoms
- o There is no age barrier to use emergency contraception
- o Emergency pill is the most popular method and needs to be taken within the first 72 hours after unprotected unprotected intercourse to be more effective although it should not be used as a regular method of contraception
- o IUCD is the most effective emergency contraceptive method method. The IUCD can be left in place thereafter as an ongoing method of contraceptin.



For how long should I use family planning methods?

- After the age of 50 years, the family planning method should be continued for at least one year after the last period date and if it is below the age of 50 years, it should be continued for 2 years.
- All the family planning methods can be safely stopped at the age of 55 years irrespective of the bleeding pattern, as the risk of pregnancy at this age is extremely minimal. However, this does not protect you from STIs.
- It is advisable to continue a suitable family planning method until the age of 55 years as pregnancy could occur even with irregular periods.
- Women on pills and Depo Provera should switch to a different method (IUCD, implant, IUS) at the age of 50 years.

- Ministry of Health provides all the modern methods of contraception free of charge.
- Family Health Bureau now provides family planning services to older women through the Well Women clinics.
- Discuss the pros and cons of a particular method with your doctor or midwife before you start or change to a different method.

The doctor tested and found that Sonali was not pregnant. Sonali and Ajith were relieved. The doctor discussed with them and they agreed to use an IUCD, which Sonali will continue to use till she reaches menopause.

Can I get pregnant after 40 years?

Aadilah is 46 years old. She got married when she was 30 years old. After graduating from a state university in Sri Lanka, she went to the United Kingdom for her post-graduate studies few years after her marriage. She had an excellent academic performance there, and she was offered employment at the same university.

After a few years of marriage Aadilah and her husband Ahmed considered starting a family but the busy lifestyle and her demanding academic career did not permit them to attend to it.

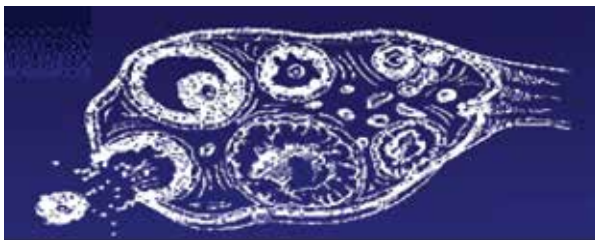
However Aadilah was 40 years old when they came back to Sri Lanka. They started treatment at 41 years of age, but unfortunately they were not successful. In considering her age the doctors suggested egg donation as the best option for their infertility problem.

Many women now defer having a child until their later thirties or beyond. If these women then fail to conceive readily, they become one of the most difficult problems in reproductive medicine today.

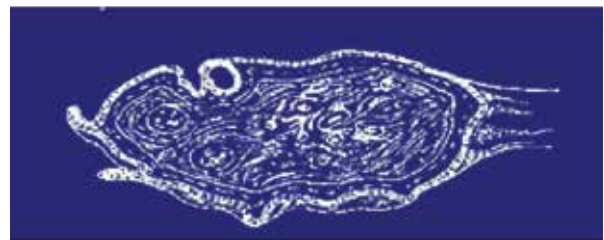
What happens to fertility after 40 years?

A woman's fertility begins to decline many years before menopause, despite continued regular menstrual cycles producing ova or eggs. This is because of several reasons:

- Women are born with about one million germ cells which are able to form eggs. They rapidly become less in number as they get older, and new germ cells are not formed. The germ cells are exhausted at menopause and therefore it is not possible to form eggs any more.
- The quality of eggs produced by germ cells diminishes with age.
- The frequency of sexual intercourse often declines with age.



Ovary before menopause with developing eggs of different stages and an egg being released



Smaller ovary after menopause with no eggs

How does this affect the chance of becoming pregnant?

- Fertility is more dependent on the age of the woman than the man. The most important reason is the declining number and quality of eggs available in older women.
- When superovulated during assisted reproduction, these women produce few eggs, and are described as poor responders.
- Miscarriages are also more frequent as the woman gets older. This is also mostly due to the poor quality of eggs which fertilized and made the woman pregnant.

What can be done to have a successful pregnancy in subfertile older couples?

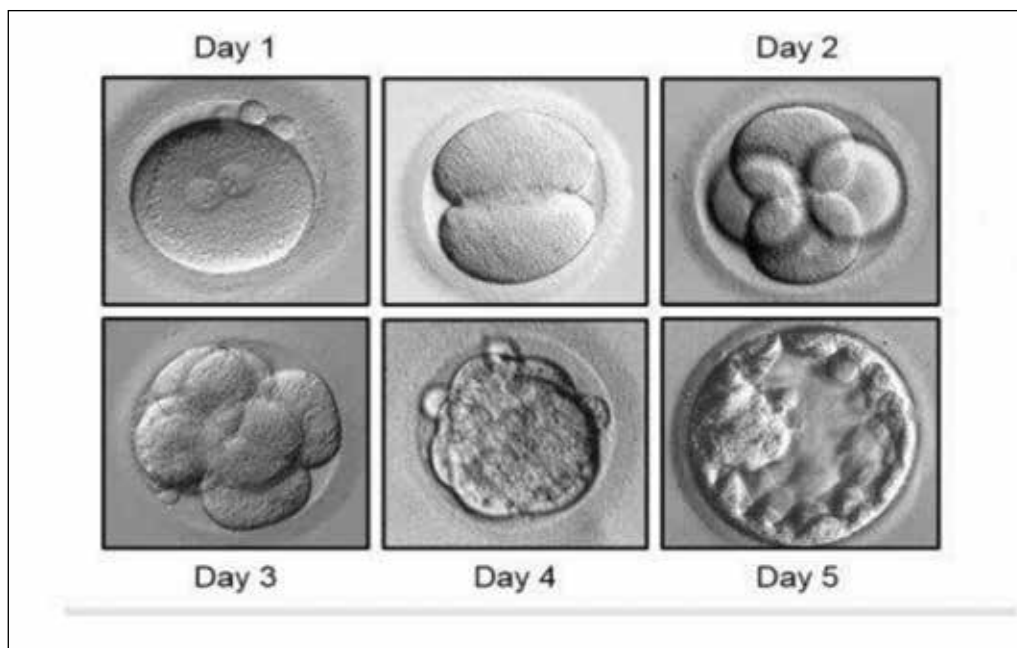
Assisted reproductive technology (ART) treatment is always encouraged early, to ensure better outcomes without wasting time, before the couple becomes older. Success rates achieved with ART also decline as the age of the women increases.

What is Assisted Reproductive Technology?

There are several methods, and the doctors responsible for treatment of subfertility will discuss with the couple and decide what is best for each couple. The most commonly used types are fertility medication and in-vitro fertilization.

In-vitro fertilization (IVF)

- During IVF the woman's eggs are extracted and the man's sperms are obtained. The eggs and sperm are manually combined in a laboratory dish. When the eggs are fertilized by sperm, the embryo(s) formed are then transferred to the woman's womb.



- The eggs can be obtained from the woman who wishes to get pregnant. However, sometimes, healthy eggs may have to be obtained from another woman.

How successful is IVF?

- The success rate of IVF depends on the age of the woman and the cause of the infertility (if it's known). Younger women are more likely to have healthier eggs, which increases the chances of success.
- IVF however, is not usually recommended for women over the age of 42 years, as the chances of a successful pregnancy are thought to be too low.
- Therefore egg donation becomes the only option for such women.

What is egg donation?

- Egg donation is the process by which a woman provides one or several (usually 10-15) eggs (ova, oocytes) for purposes of assisted reproduction.
- Sub-fertile couples may need to get eggs through egg donation when the woman cannot have genetic children because she may not have eggs that can generate a successful pregnancy. This is often, because of the older age of the woman. In some women, menopause occurs as early as their 30's requiring such women to use donor eggs to grow her family.

How is egg donation done?

- Consent is obtained from egg donors before participation in the IVF process.
- Egg donors once recruited, are screened to ensure that the eggs are healthy.
- The timing of the menstrual cycles of the donor woman and the woman who wishes to be pregnant are made to occur at the same time using the oral control pill.
- The egg donor undergoes IVF stimulation therapy, followed by the egg retrieval procedure.
- The retrieved eggs are fertilized by the sperm of the male partner of the recipient couple, in the laboratory.
- After few days, the best embryos formed are placed in the womb of the woman which has been prepared for embryo transfer beforehand.
- The recipient is usually, the person who requested the service, i.e. the woman who wished to be pregnant, who will carry the pregnancy and give birth to her baby.

Aadilah and Ahmed were distressed at first, realizing that through the egg donation egg donation treatment program the child born would not be genetically related related to Ashanthi. But after several sessions of counselling, they have decided to use egg donation treatment to have their baby. They were happy that that they may finally be able to have the child they always dreamed of!

Do I have dementia?

Karunarathna is a 60 year-old retired teacher. She was known as an excellent teacher loved equally by her school staff and students.

Her son had noticed significant changes over the last six months. She tends to forget many things now like if she ate, drank tea or take her usual medication. She has developed poor attention, being indifferent in conversations and even stopping mid sentence while talking. She also says "where am I" and "this is a strange place with odd people" when she is at home among relatives. She also seems to be excessively anxious and sometimes gets ready to go to school even though she is repeatedly told that she retired a few years ago.

Karunarathna had been very careful about her appearance, but has now changed completely and does not like to wash, brush her teeth, or change her clothes, giving excuses like "it's very cold today". There were instances where she came out of bathroom naked and started dressing in front of strangers.

Sometimes she was tearful and very sad, and wished she was dead. She claims to have "no energy" and had lost interest in many things she had liked before. Karunarathna states she feels threatened and complains of palpitations, shortness of breath and feeling that she might suddenly fall dead.

What is dementia?

Dementia is a decline in mental ability severe enough to interfere with daily life. Alzheimer's disease is the most common cause of dementia.

Other causes also increase the risk of dementia.

Eg: Dementia among other family members

Brain cell death due to artery blockage (cholesterol, high blood pressure, diabetes)

Depression

Medication side effects

Excess use of alcohol

Thyroid problems

Vitamin deficiencies

After menopause, blood levels of oestrogen hormone which has protective effects on the brain will fall, increasing the risk of dementia in older women.



Normal brain

Brain in Alzheimer dementia

What are the common features of dementia?

- Forgetfulness
- Personality changes- passive to hostile, reduced initiation and expression of emotions
- Poor attention
- Unable to respond appropriately to people and surrounding environment
- Restlessness (pacing up and down) and agitation
- Ignorance of personal hygiene and ethical practices
- Sleep disturbances
- Suspicious ideas of others without evidence (imagine others stealing their money, property, belongings)

What other features can be seen?

- Hallucinations (may see, hear, smell, taste or feel something that isn't there)
- Slow to understand and do things
- Anxiety symptoms (unrecognized fear, restlessness, feeling heartbeat, breathing fast, sudden urge to pass stools or urinate)
- Depressive symptoms (sad feelings, loss of interest for things enjoyed in past, suicidal ideas, loss of energy)
- Getting lost in previously familiar places (can't find the bathroom or bedroom)

Can dementia be cured?

Unfortunately there is no cure.

But treatment can be used to slow its progression. **So seek medical help as soon as possible.**

What other measures can help?

All above symptoms need to be considered in treatment of dementia. Those with dementia may not remember recent events but will have a strong memory of the past. Therefore, past memories can be used to control their restlessness (eg: classical music, gardening, small vegetable farms and rearing animals).

What actions should be taken to manage dementia?

1. Assessment in a psychiatry /neurology clinic and jointly with team of specialists to confirm she has dementia by few simple tests while excluding other treatable illnesses by simple blood tests.
2. Educate families. Dementia is the only controllable progressive condition which may lead to make her bed bound after 3-5 years.
3. Arrange to take medicine that controls dementia regularly. Medicine to improve sleep, anxiety and depression may be useful.
4. Responsibility of taking medication should be taken by another person as she may forget to take medication by herself.
5. Daily routine should be structured so that it is similar every day. This reduces restlessness and anxiety due to forgetfulness. She should not have too much time without planned activities. (allocate time for reading books, watching TV, exercise, meals etc)
6. Balanced diet and liquids needs be given frequently to avoid constipation.
7. Arrange to be with children (eg. teach children nursery rhymes, stories) as she was with children most of her life. This will make her happy and her work will be valued.

8. Prepare the last will or handing over property before losing the capacity to decide.
9. Use arrows to show directions to essential places like the toilet and keep the pathway lighted at night.
10. For orientation, each day and date should be highlighted in a calendar.
11. Photos of loved ones should be named and kept in a prominent place to be seen everyday.

Early treatment has better outcome thus seek medical advice if you suspect dementia.

Karunarathna was diagnosed with dementia and started treatment. Her family willingly did all what was needed to make her condition better. She was on regular medicines and there was no apparent worsening of her forgetfulness. Her grandchildren visited her daily and she started helping them with simple homework. Three months later she was a happier person. Though still forgetful, her life had been made easier.

Sexual dysfunction in ageing men and women

At school:

Two teachers are in conversation in the teacher's common room.

"Malini, did you notice that principal madam has changed recently?" "Yes Kusum. I also noticed that she is getting irritable very easily. She was so nice earlier." "Why Malini? Can you remember what happened last week? She chased out the office clerk for such a trivial thing no? For some paper clips not being available. Those days she used to say "please go to the canteen and bring my dear". What a change! What a temper!" "But some days she is quite ok. I don't know what is happening to her. She may have a nervous breakdown very soon at this rate". "Yes. She is on medication for high blood pressure also no?" "She was fine till the 51st birthday party no. Is it old age?"

At the principal's (Chitra de Silva) home: Bed time

Husband:

"Chitra, Shall we watch a film on the TV till we feel sleepy?" "Aiyo. I'm very tired. You can watch." "No. that is ok. Let's sleep then". "No. No. I will go to bed. You can watch a film." "Chitra. Are you all right. For the last 10 days you have been avoiding me and going to bed before me. Are you having some problem at school?" "No. There is no issue at school. But I don't feel any interest in you like earlier. I love you very much but I don't like those other things now. I dislike that now. It is very painful also. These sudden sweating attacks are also very disturbing"

Sexuality of both men and women declines with advancing years.

What affects the decline in sexual activity in men and women with age?

1. Level of sexual activity throughout a person's lifetime
2. Physical health
3. Psychological health

However, sexual activity can still be enjoyable in old age despite the absence of penetrative sex, contrary to the general belief of sex being either equal to or incomplete without penetrative sex.

Level of sexual activity throughout a person's lifetime

A person or a couple who had been quite active sexually during their younger days will experience a decline in their sexual activity in their old age compared to others who have always had less than satisfactory sexual activity in their young age.

Physical Health

Physical health has a direct bearing on the sexual activity of any person, especially older people.

What physical health problems will have a negative effect on the sex life of older persons?

- Urinary leakage
- Restricted movements due to arthritis
- Decreasing muscle strength
- Prolapse of the womb
- Lack of skin tone and sensitivity
- Diseases such as diabetes
- Heart diseases
- Diseases affecting the blood vessels and nerves

Psychological Health

Even if the above mentioned prerequisites are fulfilled, people need sound psychological health for a mutually satisfying sexual experience. This factor is true for any age. However, it is more important in old age as there are many predisposing factors for poor psychological health during this period of life.

What makes older people more vulnerable to psychological problems?

- Sense of unattractiveness
- Feeling closer to death
- Depression
- Bereavement and grief reactions
- Loss of partner
- Being neglected by children or friends
- Lack of contact with others and loneliness

While these could be buffered by the cultural compensations such as extended family system seen in rural Sri Lanka, urbanization and new emigration patterns are making these problems a commonplace in our older generation just as in their western counterparts.

It is a couple issue, not an individual problem!!

In many respects, the sexual complaints of older couples mirror those of their younger counterparts. Just as in younger people, it is important to realize that sexual dysfunction is a phenomenon with one partner's sexual problem precipitating a problem in the other partner. This is very pertinent in a society like ours where males do not wish to divulge their sexual difficulties due to the fear of having a negative effect on their leadership in the family.

A woman's inability to reach orgasm might make the male partner feel very anxious and may make him consider himself as the reason behind this. This in turn is very likely to cause poor erectile response at subsequent sexual encounters, leading to further orgasmic failures in females. This now enters a vicious cycle leading to unhappiness between the couple.

Male sexual dysfunction

As men age, their testosterone sex hormone levels tend to reduce. This can in turn lead to reduced libido and poor erection. Alcohol and smoking reduces erection in males.

If you are an elderly male or female, and have sexual problems, how can you get help?

- Try to understand that you have a problem with sex.
- Try to understand your partner's sexual difficulties.
- Discuss the issue with each other. This might be difficult due to cultural differences. However, have confidence to open up about the topic with your partner.
- Get the help of your local midwife, ask her to come home and explain it to her. She can direct you to the MOH.
- Try to do what you can do. This is most effective.
 - o Maintain good personal hygiene
 - o Manage your weight
 - o Do regular exercises
 - o Healthy diet with vegetables, fruits and a lot of water
 - o Avoid alcohol and smoking
 - o Get adequate rest
 - o Have a positive outlook on menopause and sexual activities
 - o Using menopausal hormonal therapy (MHT) to ensure the health of the urinary tract system
 - o Use of menopausal hormone therapy or hormone replacement therapy as an alternative for hormones that are declining in the body.
 - o Specific exercises can be followed to control urinary leakage
- Tell your doctor if you are on any medication. They will check if any of the medication you are on can be causing the problem.

Most important

- Do not hide your problem. Find someone who can help.
- Avoid obtaining medical advice from newspapers/internet. There is no magic drug for sexual problems.

Chitra and her husband sought help from their family doctor. The doctor checked their health, gave them advice on sexual health and made some changes in their medication. They were also informed on how best to improve their sexual life. They are now a happy couple, enjoying their midlife.

