The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Wash your hands with soap and warm water and dry thoroughly. Use hand gel, if provided, in care facilities.
- If you have symptoms of diarrhoea and vomiting stay at home and do not visit relatives that are vulnerable in hospital or in residential care. You will spread the illness.
- Keep the environment clean and safe. Let’s work together to keep it that way. Prevention is better than cure.

Bisphosphonates for Osteoporosis

Primary Care Medicines Team
Introduction
This leaflet will provide you with the benefits and the risks of taking Bisphosphonates.

What are Bisphosphonates?
Bisphosphonates are medications used to treat conditions that affect your bones, for example Osteoporosis. Bisphosphonates can help to strengthen bone and prevent it getting weaker. People who take a bisphosphonate are less likely to break (fracture) a bone. Bisphosphonates include:
- Alendronate
- Ibandronate
- Risedronate

How should they be taken?

| ![Sun] | They should be taken immediately on getting out of bed in a morning. |
| ![Rooster] | On an empty stomach – no tea, coffee, juice, breakfast or other swallowed medication. |
| ![Chair] | Must be stood or sat upright. Being propped up on pillows is insufficient; must be sat up as if in an upright chair. |
| ![Glass] | The tablet must be swallowed whole with a full glass (around 200ml) of plain tap water. |
| ![Ball] | Tablets should not be sucked, chewed or split. |
| ![Chair] | Sit or stand upright for 30 minutes after taking the tablet. You may walk around during this time. |
| ![Clock] | No food, drink (other than water) or other swallowed medication for 30 minutes after taking the tablet. |

Further information
You can find further information about osteoporosis and bisphosphonates at:
- Patient.co.uk
  http://www.patient.co.uk/health/bisphosphonates
- National osteoporosis society
  https://www.nos.org.uk/
- NHS Choices
  http://www.nhs.uk/Livewell/Summerhealth/Pages/vitamin-D-sunlight.aspx

You can find out more about your rights in relation to treatment and drugs, plus other areas of your healthcare in the NHS Constitution:
• The time of year.
• What time of day it is.

Short daily periods (10-15 minutes) of sun exposure without sunscreen during the summer months (April to October) are enough for most people to make enough vitamin D.

**Complete weight-bearing exercises**
Weight-bearing exercises are any exercise in which you are supporting your own body weight through your feet and legs (or hands and arms). Adults should be undertaking 30 minutes of moderate-intensity physical activity at least five days a week. Examples include walking, climbing stairs, yoga, Tai-Chi, dancing and golf.

**Lower your risk of falling**
• Talk to your doctor or pharmacist if any of your medications make you feel light-headed or dizzy.
• Have regular eye tests and wear glasses if you need them.
• Remove rugs and other trip hazards from your home.
• Be careful when going up and down stairs and always hold the bannister.
• Wear well-fitting footwear.
• Limit or avoid alcohol.

**Stop smoking**
Visit NHS Smokefree for advice and support: https://www.nhs.uk/smokefree

**Maintain a healthy weight**
Visit the Live Well page on NHS Choices for advice and support: https://www.nhs.uk/livewell/Pages/Livewellhub.aspx

**Why is this important?**
If Bisphosphonates are not taken according to the dose instructions there is a high risk of side effects and/or the medication not working.

Calcium tablets (Adcal D3, Calcichew D3) are often prescribed alongside Bisphosphonates to help them work more effectively, however these supplements can affect the absorption of Bisphosphonates. Therefore on the day that you take your Bisphosphonate medication leave a period of at least 4 hours before taking your calcium supplement. Do not take them at the same time.

**What should I do if I get side effects from the medication?**
It is important to tell your GP if you have any side effects as there are other drug treatments that you can be started on. Your doctor will refer you to see a Rheumatologist who specialises in osteoporosis who will discuss alternative treatments with you.

**Should I stop taking Bisphosphonates?**
Bisphosphonates are very helpful for preventing bone fractures in women and men with osteoporosis but not everyone agrees on how long Bisphosphonates should be taken for. Most experts agree that they need to be taken for a number of years to see the full effect.

There is evidence that Bisphosphonates keep working on the bone for a few years after the medicine has been stopped. There is also evidence that taking them for longer than five years can do more harm than good. New research suggests that there are risks associated with staying on a Bisphosphonate for long periods of time. These risks are rare, but include:
• Breaking a thigh bone,
• Bone, joint, or muscle pain,
• Problems with the health of your jaw bone.
• Most doctors recommend that a Bisphosphonate should be taken for at least five years. After this period they will carry out a review to see if you still need to take the medication. You may be told that you can stop taking a Bisphosphonate. However, some people need to take a Bisphosphonate for longer. Your doctor can advise you and discuss the options with you.

If you have been on a Bisphosphonate for a long time, you may be nervous about stopping it. The choice to stop needs to be made by understanding the risks and benefits for you. If you have been on a Bisphosphonate for longer than five years, talk to your doctor about whether stopping is the right choice for you.

What happens if I stop taking my Bisphosphonate medication?
Your doctor will check your bone mineral density (BMD) every two to three years after stopping a Bisphosphonate. If your tests show your bones are weakening faster than expected, you may be advised to restart treatment.

Precautions
• If you have any ‘new’ thigh, hip or groin pains, report it to your doctor.
• You must tell your dentist if you are taking a Bisphosphonate. You will need to have regular dental check-ups. This is because there is a very small chance that you may get a condition affecting the jaw called ‘osteonecrosis of the jaw’. This happens when the jaw bone does not receive enough blood and the bone starts to weaken. It is usually painful, but not always. In most people, this goes away after you have stopped taking a Bisphosphonate.

You can do a lot to help prevent bone breaks or fractures

Calcium and vitamin D
Calcium and vitamin D may come from food, supplements, or a combination of both. Be careful not to take more calcium and vitamin D than is recommended as too much can be harmful.

<table>
<thead>
<tr>
<th>How much calcium should I be getting?</th>
<th>3-4 portions per day, with portion sizes of 200 - 300mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can I get that much calcium?</td>
<td>A daily intake of 1,000mg calcium can be obtained from eating all of these foods:</td>
</tr>
<tr>
<td></td>
<td>400ml milk (480mg)</td>
</tr>
<tr>
<td></td>
<td>125g plain yogurt (250mg)</td>
</tr>
<tr>
<td></td>
<td>30g hard cheese (225mg) and</td>
</tr>
<tr>
<td></td>
<td>Two slices of wholemeal bread (60mg).</td>
</tr>
</tbody>
</table>

There are many other foods which are a good source of calcium.

Our body creates most of our vitamin D from direct sunlight on our skin.

The amount of time you need to spend in the sun for your skin to make enough vitamin D depends on a number of factors. These include:

• Your skin type (how dark your skin is or how easily you get sunburnt).