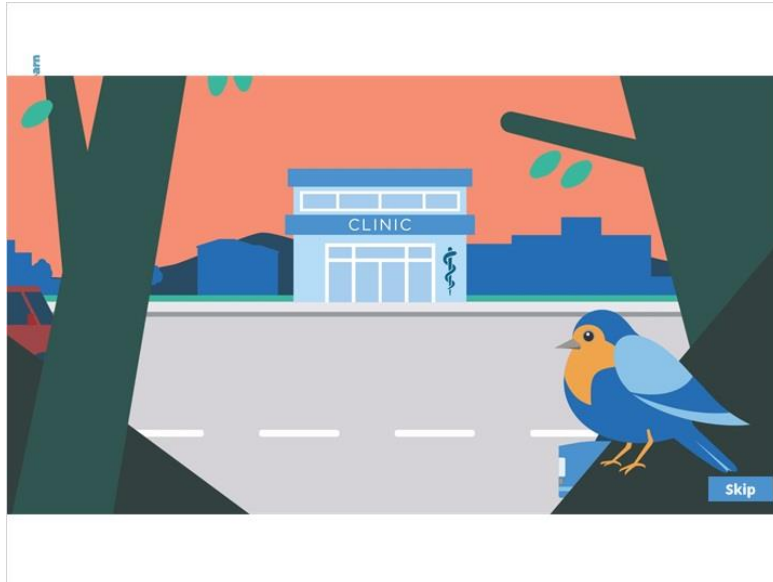


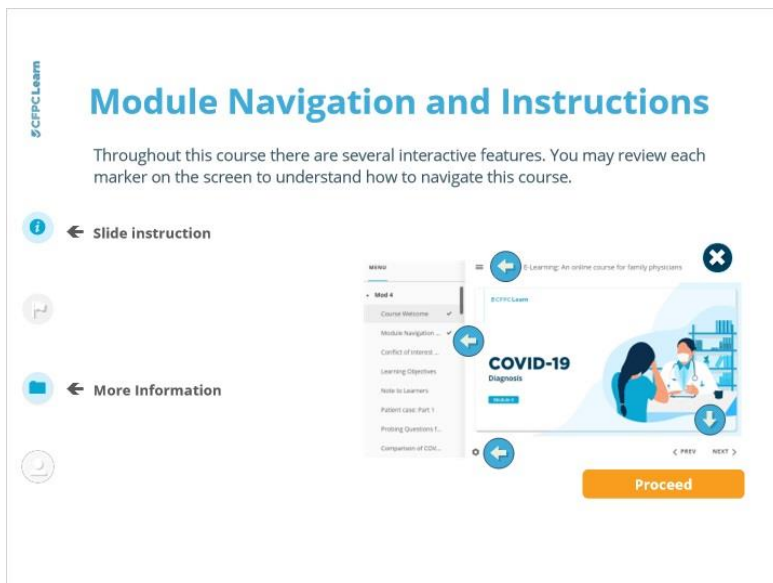
# Case 29 Dixie Brittle

## 1. Conflicts

### 1.1 Intro Video



### 1.2 Module Navigation and Instructions



## 1.3 Learning Objectives

CFPC Learn

### Learning Objectives

**At the end of this module participants should be able to:**

1. Identify key factors/findings in family medicine to help establish common clinical diagnoses.
2. Evaluate best evidence/guidance and practice tools to determine preferred treatment options for patients.
3. Synthesize patient preference, evidence and experience to formulate comprehensive plans for patient cases.

Approximately 15 minutes to complete each patient case.

Proceed

## 2. Dixie Brittle

### 2.1 Meet Dixie Brittle

CFPC Learn


### Dixie Brittle

Ms. Dixie Brittle has been in your practice for many years and you know her quite well.

She comes to your practice with a new concern about her bones.

Dixie BMD Test Dixie's Questions

Moving Forward



## Dixie Questions (Slide Layer)

The screenshot shows a slide titled "Dixie Brittle" with the SCFPCLearn logo in the top left. On the left side, there is a vertical navigation menu with icons for home, back, forward, and search. The main content area features a light blue header with the title "Dixie Brittle". Below the header is a large orange speech bubble containing the text "Dixie Responds 'What did the other tests say?'". Underneath the speech bubble are three dark blue buttons: "Dixie", "BMD Test", and "Dixie's Questions". At the bottom right of the content area is an orange button labeled "Moving Forward". On the right side of the slide is a vertical panel with a light blue background, featuring an illustration of an elderly woman with white hair and glasses, wearing a purple top and a dark blue skirt. A small speech bubble icon is in the top right corner of this panel.

## BMD Test (Slide Layer)

The screenshot shows a slide titled "Dixie Brittle" with the SCFPCLearn logo in the top left. On the left side, there is a vertical navigation menu with icons for home, back, forward, and search. The main content area features a light blue header with the title "Dixie Brittle". Below the header is a light blue text box containing the following text: "You quickly run through your records for the results of the bone mineral density tests. You find it was done for Dixie at age 70 and her femoral neck T-score was -2.2 at that time. Her estimated fracture risk was 9.4% and she did not want therapy at that time." Below the text box are three dark blue buttons: "Dixie", "BMD Test", and "Dixie's Questions". At the bottom right of the content area is an orange button labeled "Moving Forward". On the right side of the slide is a vertical panel with a light blue background, featuring an illustration of an elderly woman with white hair and glasses, wearing a purple top and a dark blue skirt. A small speech bubble icon is in the top right corner of this panel.

## Dixie (Slide Layer)

The screenshot shows a slide layer titled "Dixie Brittle" from the SCFFC Learn platform. On the left is a navigation sidebar with icons for home, back, forward, and search. The main content area features a blue header with the title and a character icon. A yellow speech bubble contains Dixie's dialogue: "Goodness, where to start? My sister just broke her hip. I've been terrified since. You did a bone marrow test thing years ago. We talked about it after but I can't remember what you said. What did it find?". Below the speech bubble are three buttons: "Dixie", "BMD Test", and "Dixie's Questions". A "Moving Forward" button is located at the bottom right. On the right side of the slide is a full-body illustration of Dixie, an elderly woman with white hair and glasses, wearing a purple top and a dark skirt.

## 2.2 Review Dixie History

The screenshot shows a "Review" slide layer from the SCFFC Learn platform. The header is blue with the word "Review" and a circular character icon. The left sidebar is identical to the previous slide. The main content area has a light blue background with a central text box that says "Click on the other tests to reveal more information about Dixie." To the left of this text are four buttons: "Past BMD", "OST", "OST Calculation", and "Dixie's OST". A "Moving Forward" button is at the bottom right.

## Dixie's OST (Slide Layer)

The slide layer has a blue header with the word "Review" and a circular profile picture of an elderly woman with glasses. On the left, there is a vertical navigation menu with icons for home, back, forward, and search, and a list of buttons: "Past BMD", "OST", "OST Calculation", and "Dixie's OST". The main content area shows the following text:

**Dixie's OST**  
At two past visits, Ms. Brittle's OST scores were:

At age 55:  $75 \text{ (kg)} - 55 \text{ (years)} = 20$   
At age 61:  $75 \text{ (kg)} - 61 \text{ (years)} = 14$

A "Moving Forward" button is located at the bottom right of the content area.

## OST Calculation (Slide Layer)

The slide layer has a blue header with the word "Review" and a circular profile picture of an elderly woman with glasses. On the left, there is a vertical navigation menu with icons for home, back, forward, and search, and a list of buttons: "Past BMD", "OST", "OST Calculation", and "Dixie's OST". The main content area shows the following text:

**Osteoporosis Screening Tool Calculation**  
Formula:



OST score = weight (in kilograms) - age (in years)

A "Moving Forward" button is located at the bottom right of the content area.

## OST (Slide Layer)

SCFPCLearn

### Review



- Past BMD**
- OST**
- OST Calculation**
- Dixie's OST**

#### Osteoporosis Screening Tool

Prior to her first BMD, you used the Osteoporosis Screening Tool (OST). The OST can determine if patients may be at risk for osteoporosis.



The OST includes two parameters: weight, which is protective against osteoporosis and fractures, and advancing age which increases risk.

Moving Forward

## Past BMD (Slide Layer)

SCFPCLearn

### Review



- Past BMD**
- OST**
- OST Calculation**
- Dixie's OST**

#### Past BMD Results

Ms. Brittle had a BMD at age 65 years. Her femoral neck T-score was -2.0 and her risk of a non-vertebral fracture was 7.5%


Moving Forward

## 2.3 Multiple choice question

(Multiple Response, 10 points, 1 attempt permitted)

SCFPCLearn

Which of the following statements about the OST and BMD is false?



An OST score of less than 10 indicates an increased risk of osteoporosis.

Identifying osteoporosis is key for prescribing interventions.

Guidelines recommend that women over 65 years old get a BMD.

The OST performs well compared to other tools with more risk factors.

Submit

Correct	Choice
An OST score of less than 10 indicates an increased risk of osteoporosis.	
Identifying osteoporosis is key for prescribing interventions.	X
Guidelines recommend that women over 65 years old get a BMD.	
The OST performs well compared to other tools with more risk factors.	

## 2.4 Review

**Review**

**Answer:** The correct answer is B. The statement "identifying osteoporosis is key for prescribing interventions" is false.

**10-Year Fracture Risk**

**Guidelines**

**Women 50-65 years old**

**OST Interpretation**

**Additional Risk Factors**

Click on the buttons to view additional information

Moving Forward

### Additional Risk Factors (Slide Layer)

**Review**

**Answer:** The correct answer is B. The statement "identifying osteoporosis is key for prescribing interventions" is false.

**10-Year Fracture Risk**

**Guidelines**

**Women 50-65 years old**

**OST Interpretation**

**Additional Risk Factors**

**Additional Risk Factors**

For patients with additional risk factors (e.g., fragility fractures, medications, or disorders associated with secondary osteoporosis), an earlier BMD (instead of OST) may be reasonable.

Patients with a history of a fragility fracture are considered high risk and treatment can be encouraged without a BMD or formal fracture risk assessment.



Moving Forward



## OST Interpretation (Slide Layer)

SCFPCLearn

### Review



**Answer:** The correct answer is B. The statement “identifying osteoporosis is key for prescribing interventions” is false.

- 10-Year Fracture Risk
- Guidelines
- Women 50-65 years old
- OST Interpretation**
- Additional Risk Factors

#### OST Interpretation

A score of 10 or more indicates less than 5% risk of osteoporosis and screening with BMD is not required.



A score of less than 10 means there is an increased risk of osteoporosis and a screening with BMD is warranted.

Moving Forward

## Women 50-60 (Slide Layer)

SCFPCLearn

### Review



**Answer:** The correct answer is B. The statement “identifying osteoporosis is key for prescribing interventions” is false.

- 10-Year Fracture Risk
- Guidelines
- Women 50-65 years old
- OST Interpretation**
- Additional Risk Factors

#### Risk Assessment for women 50-65 years old

For women 50-65 years old, risk assessment tools like the OST can be useful to determine who might benefit from a BMD.



Systematic reviews have shown that the OST performs as well as other tools with more risk factors.

Moving Forward

## Guideline Recommendations (Slide Layer)

SCFPCLearn

### Review



**Answer:** The correct answer is B. The statement “identifying osteoporosis is key for prescribing interventions” is false.

**10-Year Fracture Risk**

**Guidelines**

**Women 50-65 years old**

**OST Interpretation**

**Additional Risk Factors**

**Guideline Recommendations**



Guidelines recommend screening women over 65 years old with a BMD. This patient population has an average 10-year risk of major osteoporotic fracture of ~8.4%.

**Moving Forward**

## 10yr Fracture Risk (Slide Layer)

SCFPCLearn

### Review



**Answer:** The correct answer is B. The statement “identifying osteoporosis is key for prescribing interventions” is false.

**10-Year Fracture Risk**

**Guidelines**

**Women 50-65 years old**

**OST Interpretation**

**Additional Risk Factors**

**Calculating 10-Year Fracture Risk**

The key patient-oriented outcome is fractures. Osteoporosis is a risk factor and surrogate marker for fracture risk. A BMD can identify osteoporosis but alone it cannot tell us the fracture risk.

Therefore, it is important to determine the 10-year fracture risk using clinical factors (including age) combined with the T-score.

**Moving Forward**

## 2.5 Other Tools

The screenshot shows a user interface for 'Other Risk Assessment Tools'. At the top, there is a blue header with the title 'Other Risk Assessment Tools' and a circular profile picture of an elderly woman with glasses. Below the header, on the left, is a vertical sidebar with icons for home, back, forward, and search. The main content area contains three dark blue buttons: 'Osteoporosis Canada', 'FRAX', and 'Bone Health Choice'. A light blue box in the center contains the text 'Click on the buttons to view additional information'. At the bottom right, there is an orange button labeled 'Moving Forward'.

### Bone Health Canada (Slide Layer)

This screenshot is similar to the one above, but with a slide layer open for the 'Bone Health Choice' button. The slide layer is a light blue box with a close button (X) in the top right corner. It contains the following text: 'The Bone Health Choice Decision Aid', 'This [decision aid](#) is available online from the Mayo Clinic. It necessitates going to a specific website. It also quantifies the benefits of bisphosphonates and discusses harms.' The 'Moving Forward' button remains visible at the bottom right.

## FRAX (Slide Layer)

The slide features a blue header with the text "Other Risk Assessment Tools" and a circular icon of an elderly woman. On the left, a vertical sidebar contains icons for "Osteoporosis Canada", "FRAX", "Bone Health Choice", and a "Moving Forward" button. The main content area displays the "FRAX" tool selected, with a text box explaining that the Fracture Assessment Tool (FRAX) is available online and uses multiple risk factors. A "Moving Forward" button is located at the bottom right of the slide.

## Osteoporosis Canada (Slide Layer)

The slide features a blue header with the text "Other Risk Assessment Tools" and a circular icon of an elderly woman. On the left, a vertical sidebar contains icons for "Osteoporosis Canada", "FRAX", "Bone Health Choice", and a "Moving Forward" button. The main content area displays the "Osteoporosis Canada 10-Year Fracture Risk Assessment Tool" selected, with a text box explaining that Osteoporosis Canada's CAROC assessment tool is available online and uses the femoral neck T-score, history of fragility fractures of the hip or vertebrae, and/or prolonged steroid use. A "Moving Forward" button is located at the bottom right of the slide.

## 2.6 Dixie Brittle

**Dixie Brittle**

If secondary osteoporosis is suspected, you can consider ordering:

- Calcium (for hyperparathyroidism)
- TSH
- Serum electrophoresis (for multiple myeloma, especially if vertebral fractures present)
- Anti-TTG (for Celiac disease)

**You**      **Dixie**

Moving Forward

The screenshot shows a learning interface with a sidebar on the left containing navigation icons (home, back, forward, search, refresh). The main content area has a title 'Dixie Brittle' and a text box with a list of tests. Below the list are two character selection buttons, 'You' and 'Dixie', and a 'Moving Forward' button. On the right, there is a character illustration of an elderly woman with white hair and glasses, wearing a purple top and a dark skirt, with a speech bubble icon above her head.

### Dixie (Slide Layer)

**Dixie Brittle**

**Dixie**  
"Right, I remember! But the last one was four years ago.  
Do I need to go for another test?"

**You**      **Dixie**

Moving Forward

This screenshot shows the same learning interface as above, but with a slide layer open. The slide layer is a light orange box with a close button (X) in the top right corner. It contains the character name 'Dixie' and her dialogue. The 'Dixie' character selection button is now highlighted. The 'Moving Forward' button remains visible at the bottom.

## You (Slide Layer)

The screenshot shows a slide titled "Dixie Brittle" from a Storyline course. On the left, a vertical sidebar contains the "SCFPCLearn" logo and navigation icons. The main content area features a dialogue box with a yellow background. The speaker "You" says: "Well four years ago, your test said your fracture risk was around 9%. The test that was done nine years ago said it was 7.5%." Below the text are two buttons labeled "You" and "Dixie". To the right of the dialogue is a full-body illustration of an elderly woman with white hair and glasses, wearing a purple top and a dark skirt. A "Moving Forward" button is located at the bottom right of the slide.

## 2.7 Question

(Multiple Choice, 10 points, 1 attempt permitted)

The screenshot shows a question slide titled "Is another BMD required to assess 10-year fracture risk?". The slide has a blue header with the title and a circular profile picture of the elderly woman from the previous slide. Below the header, the text "Select one of the options below" is displayed. There are two radio button options: "Yes" and "No". The "No" option is selected. A "Submit" button is located at the bottom right of the slide. The left sidebar contains the "SCFPCLearn" logo and navigation icons.

## 2.8 Review

CFPCLearn

# Review

Answer: No, another BMD test is not required.

**Evidence**

**BMD Machine**

**Repeat BMD**

Click on the buttons to view additional information

Moving Forward

### Repeat BMD (Slide Layer)

CFPCLearn

# Review

Answer: No, another BMD test is not required.

**Evidence**

**BMD Machine**

**Repeat BMD**

**Repeat BMD Testing**

When treatment is initiated, repeat BMD measurements are of limited value and should not guide patient management: within person variations of bone mineral density are as large as the differences expected from treatment.

Moving Forward

## BMD Machine (Slide Layer)

The screenshot shows a 'Review' slide layer with a blue header. On the left, there is a vertical sidebar with the 'SCFPCLearn' logo and five navigation icons. The main content area features a blue header with the word 'Review' and a circular profile picture of an elderly woman with glasses. Below the header, the text reads: 'Answer: No, another BMD test is not required.' There are three dark blue buttons: 'Evidence', 'BMD Machine', and 'Repeat BMD'. The 'BMD Machine' button is selected, and a light blue box displays the text: 'BMD Machine' followed by 'When BMDs are repeated, ideally the same machine should be used.' At the bottom right, there is an orange button labeled 'Moving Forward'.

## Evidence (Slide Layer)

The screenshot shows a 'Review' slide layer with a blue header. On the left, there is a vertical sidebar with the 'SCFPCLearn' logo and five navigation icons. The main content area features a blue header with the word 'Review' and a circular profile picture of an elderly woman with glasses. Below the header, the text reads: 'Answer: No, another BMD test is not required.' There are three dark blue buttons: 'Evidence', 'BMD Machine', and 'Repeat BMD'. The 'Evidence' button is selected, and a light blue box displays the text: 'Evidence for repeat BMD testing' followed by 'Bone mineral density (BMD) is fairly stable.' Below this, it says: 'For patients at low risk of fractures, two good quality studies have found limited benefit in repeating testing 4-8 years after the initial BMD. Some guidelines even advocate waiting ten years if the initial T-score is  $\geq -1.5$  (i.e., better than -1.5).' At the bottom right, there is an orange button labeled 'Moving Forward'.



## 2.9 Dixie Brittle

**Dixie Brittle**

#CFPCLearn

**You** **Dixie**

Moving Forward

You clarify the need for another BMD test with Ms. Brittle.

Dixie Brittle is an elderly woman with short white hair and glasses, wearing a purple long-sleeved top and a dark blue skirt. She is standing with her left hand on her hip. A speech bubble icon is in the top right corner of her portrait.

### Dixie (Slide Layer)

**Dixie Brittle**

#CFPCLearn

**You** **Dixie**

Moving Forward

**Dixie**  
"What does it mean? Is that high? My sister just had a hip fracture, though. What should I do?"

Dixie Brittle is an elderly woman with short white hair and glasses, wearing a purple long-sleeved top and a dark blue skirt. She is standing with her left hand on her hip. A speech bubble icon is in the top right corner of her portrait.

## You (Slide Layer)

**Dixie Brittle**

**You**  
"No need to order another bone density check. Your last test is still good [femoral neck T-score was -2.2]. You've not had a fracture. Your risk of fracture in the next 10 years is 12%."

**You** **Dixie**

Moving Forward

### 2.10 Multiple choice question

(Multiple Response, 10 points, 1 attempt permitted)

**Bisphosphonates reduce the absolute risk of non-vertebral fractures over 1-4 years by:**

(Non-vertebral fractures: hip, wrist, ankles, etc.)

0.2%

2%

12%

0.002%

Submit

#### Feedback when correct:

That's right! You selected the correct response.

#### Feedback when incorrect:

## 2.11 Other Tools

**Review**

**Answer:** The correct answer is that bisphosphonates reduce absolute risk by 2% over 1-4 years.

**Efficacy - Part I**

**Efficacy - Part II**

**Atypical Fractures**

**ONJ**

**Contraindications**

Click on the buttons to view additional information

**Moving Forward**

### Contraindications (Slide Layer)

**Review**

**Answer:** The correct answer is that bisphosphonates reduce absolute risk by 2% over 1-4 years.

**Efficacy - Part I**

**Efficacy - Part II**

**Atypical Fractures**

**ONJ**

**Contraindications**



**Contraindication in Chronic Kidney Disease**  
Bisphosphonates cannot be used if eGFR is less than 30-35 mL/min.

**Moving Forward**

## ONJ (Slide Layer)

SCFPCLearn

# Review



**Answer:** The correct answer is that bisphosphonates reduce absolute risk by 2% over 1-4 years.

- Efficacy - Part I
- Efficacy - Part II
- Atypical Fractures**
- ONJ
- Contraindications

### Osteonecrosis of the Jaw (ONJ)



Osteonecrosis of the jaw is rare (0.001%-0.01%) outside of the oncological setting.

Moving Forward

## Atypical (Slide Layer)

SCFPCLearn

# Review



**Answer:** The correct answer is that bisphosphonates reduce absolute risk by 2% over 1-4 years.

- Efficacy - Part I
- Efficacy - Part II
- Atypical Fractures**
- ONJ
- Contraindications

### Atypical Fractures

The risk of atypical fractures increase with duration of bisphosphonate use (hazard ratio is ~ 9 at three years, compared to ~44 at five years) but the absolute risk remains low.



At five years, between 14 and 100 fractures are prevented for every one atypical fracture caused.

Moving Forward

## Efficacy 2 (Slide Layer)

SCFCLearn

# Review



**Answer:** The correct answer is that bisphosphonates reduce absolute risk by 2% over 1-4 years.

- Efficacy - Part I
- Efficacy - Part II
- Atypical Fractures
- ONJ
- Contraindications

### Bisphosphonate Efficacy, Part II

Vertebral fractures occur in 7-13% of participants on placebo, and this is reduced to 3-8% of participants on bisphosphonates (NNT 16-33).



Absolute benefit will vary with baseline risk – that is, there are greater benefits with bisphosphonates if fracture risk is higher.

Moving Forward

## Efficacy 1 (Slide Layer)

SCFCLearn

# Review



**Answer:** The correct answer is that bisphosphonates reduce absolute risk by 2% over 1-4 years.

- Efficacy - Part I
- Efficacy - Part II
- Atypical Fractures
- ONJ
- Contraindications

### Bisphosphonate Efficacy, Part I

Bisphosphonates, like alendronate 70mg once weekly, are commonly used first line.

Over 1-4 years, bisphosphonates prevent 0.5-1% hip fractures (number needed to treat (NNT) 100-200) and approximately 2% of non-vertebral fractures (NNT 35-65).

Moving Forward

## 2.12 Dixie Brittle

**Dixie Brittle**

**You tell Dixie:**  
"Ms. Brittle, your risk of having a fracture in the next 10 years is 12% without the medication.

This risk will go down to about 8% if you take a bisphosphonate."

Calculation   You   Dixie

Moving Forward

The slide features a vertical sidebar on the left with icons for information, navigation, and a refresh button. On the right, there is an illustration of an elderly woman with short white hair and glasses, wearing a purple long-sleeved top and a dark blue skirt. A speech bubble icon is positioned above her head.

### Dixie (Slide Layer)

**Dixie Brittle**

**Dixie**  
"You don't make it sound very appetizing. But I'm worried because of my sister. She's only three years older."

Calculation   You   Dixie

Moving Forward

This slide is identical in layout to the previous one, but the text in the central box is now Dixie's response. The sidebar and character illustration remain the same.

## Calculation (Slide Layer)

**Dixie Brittle**

**Calculating the reduced risk with bisphosphonates**

The relative risk reduction for fractures with bisphosphonates is about 30%. Ms. Brittle's estimated fracture risk is about 12%.

$$12\% \times 0.30 = 3.6\%$$

Her risk would be reduced by ~4% when she takes the medication. Her new fracture risk is ~8%.

The [Bone Health Choice Decision Aid](#) does the calculation and provides an infographic for patients.

**Calculation**   **You**   **Dixie**

Moving Forward

## You (Slide Layer)

**Dixie Brittle**

**You**

"For those medications, you will need to take them once a week, first thing in the morning. Sometimes the medication can cause irritation if it gets stuck – so be sure to take it with water to wash it right down and stay upright for about 30 minutes."

**Calculation**   **You**   **Dixie**


Moving Forward

### 2.13 Multiple choice question

(Multiple Response, 10 points, 1 attempt permitted)

#CFPCLearn

## Which of the following statements about the treatment of osteoporosis are true?



**Select all that apply.**



- All patients should supplement with vitamin D to promote bone health.
- Vitamin D and calcium taken together decrease the relative risk of fracture by 5-15%.
- Denosumab is consistently superior to bisphosphonates.
- Decision aids can be used to guide patients.
- Only dietary calcium can prevent fractures.

**Submit**

## 2.14 Review

#CFPCLearn

## Review



**Answer:** The correct answer is C.

- Decision Aids**
- Calcium or Vitamin D #1
- Calcium or Vitamin D #2
- Combination #1**
- Combination #2**
- Denosumab #1
- Denosumab #2

Click on the buttons to view additional information



**Moving Forward**



## Denosumab - Copy (Slide Layer)

SCFPCLearn

# Review



Answer: The correct answer is C.

- Decision Aids
- Calcium or Vitamin D #1
- Calcium or Vitamin D #2
- Combination #1
- Combination #2
- Denosumab #1
- Denosumab #2

### Denosumab (Continued)



- Discontinuation of denosumab may be associated with rebound bone turnover and a rapid decrease in BMD. This is an issue for patients with mobility issues and chronic kidney disease for whom starting a bisphosphonate after denosumab may not be an option.
- If patients miss treatment appointments, their risk of fracture may increase.

Moving Forward

## Denosumab (Slide Layer)

SCFPCLearn

# Review



Answer: The correct answer is C.

- Decision Aids
- Calcium or Vitamin D #1
- Calcium or Vitamin D #2
- Combination #1
- Combination #2
- Denosumab #1
- Denosumab #2

### Denosumab



- Denosumab has similar benefits to bisphosphonates, at much higher cost.
- Example of annual cost: alendronate \$160 versus denosumab \$920

Moving Forward

## Combination - 2 (Slide Layer)

SCFPCLearn

# Review



Answer: The correct answer is C.

- Decision Aids
- Calcium or Vitamin D #1
- Calcium or Vitamin D #2
- Combination #1
- Combination #2
- Denosumab #1
- Denosumab #2

### Combination of Calcium and Vitamin D (Continued)



- Some systematic reviews had negative results, depending on inclusion criteria.
- Benefits are more likely for older patients living in institutions or with vitamin D deficiency than for healthier community dwelling adults.

Moving Forward

## Combination (Slide Layer)

SCFPCLearn

# Review



Answer: The correct answer is C.

- Decision Aids
- Calcium or Vitamin D #1
- Calcium or Vitamin D #2
- Combination #1
- Combination #2
- Denosumab #1
- Denosumab #2

### Combination of Calcium and Vitamin D



- Most trials of osteoporosis drugs gave patients both calcium and vitamin D supplementation.
- A meta-analysis of larger RCTs showed that vitamin D (400-800 IU daily) and calcium (1000-1200mg) decreased fractures (RR 0.94, 95% CI 0.89-0.99) and hip fractures (RR 0.84, 95% CI 0.72-0.97).

Moving Forward

## Calcium or Vitamin D - Cont (Slide Layer)

SCFPCLearn

# Review



Answer: The correct answer is C.

- Decision Aids
- Calcium or Vitamin D #1
- Calcium or Vitamin D #2
- Combination #1
- Combination #2
- Denosumab #1
- Denosumab #2

### Vitamin D or Calcium, on their own (Continued)



- While guidelines recommend increasing dietary calcium consumption, there is little research on this and it is unknown if this decreases fractures.

Moving Forward

## Calcium or Vitamin D (Slide Layer)

SCFPCLearn

# Review



Answer: The correct answer is C.

- Decision Aids
- Calcium or Vitamin D #1
- Calcium or Vitamin D #2
- Combination #1
- Combination #2
- Denosumab #1
- Denosumab #2

### Vitamin D or Calcium, on their own

- Meta-analyses show that vitamin D on its own does not decrease fracture risk.
- Data for calcium monotherapy is inconsistent. Calcium supplementation may decrease total fractures (relative risk 0.89, 95% confidence interval 0.81-0.96) but not hip fractures.

Moving Forward

## Decision Aids (Slide Layer)

**Review**

Answer: The correct answer is C.

**Decision Aids**

Calcium or Vitamin D #1

Calcium or Vitamin D #2

Combination #1

Combination #2

Denosumab #1

Denosumab #2

**Decision Aids**

These aids guide shared decision making by:

- Providing risk of fractures and benefits of therapy.
- Providing information via an infographic.
- Explaining the harms of therapy.
- Giving a summary that can be copied or printed.

Moving Forward

## 2.15 Create a Plan

**Let's Make a Plan**

Using what you have learned write a plan for Dixie. It can include any/all of the following: lifestyle intervention(s), prescription intervention(s), lab(s)/test(s) required, follow up appointment time frame, and referral required.

Fill in your plan for the patient here

See how your plan compares

## 2.16 Plan Answers

CFPC Learn

### Dixie Brittle

This is the proposed plan for Dixie. How does your plan compare?

- Calcium and Vitamin D
- Counselling
- Medication
- Follow Up

Select details on the left to see suggested recommendations

What's in a name?

The screenshot shows a user interface for a learning module. At the top left is the logo 'CFPC Learn'. The main title is 'Dixie Brittle'. Below the title is a circular profile picture of an elderly woman with glasses. To the right of the profile picture is a small icon of a scale. Below the profile picture is the text 'This is the proposed plan for Dixie. How does your plan compare?'. On the left side, there are four blue buttons: 'Calcium and Vitamin D', 'Counselling', 'Medication', and 'Follow Up'. To the right of these buttons is a large light blue box with the text 'Select details on the left to see suggested recommendations'. At the bottom left, there is a green button with the text 'What's in a name?'. On the far left, there are four circular icons representing different navigation or action options.

## Name (Slide Layer)

CFPC Learn

### Dixie Brittle

This is the proposed plan for Dixie. How does your plan compare?

- Calcium and Vitamin D
- Counselling
- Medication
- Follow Up

**Meaning Behind the Name: Dixie Brittle**  
Dixie is a play on words with DEXA (the name of the BMD scan) and Brittle being fragile



What's in a name?

The screenshot is identical to the one above, but with a slide layer open. The slide layer is a light blue box with a close button (an 'x' in a dark blue square) in the top right corner. It contains the text 'Meaning Behind the Name: Dixie Brittle' followed by a paragraph: 'Dixie is a play on words with DEXA (the name of the BMD scan) and Brittle being fragile'. The 'What's in a name?' button is now highlighted in green.

## Medication (Slide Layer)

SCFPCLearn

### Dixie Brittle



This is the proposed plan for Dixie. How does your plan compare?

- Calcium and Vitamin D
- Counselling
- Medication**
- Follow Up

What's in a name?

**Medication**



You provide Dixie with a prescription for alendronate 70mg PO once weekly x 3 months with three refills.

You remind her that it needs to be taken on empty stomach with no food.

## Follow Up (Slide Layer)

SCFPCLearn

### Dixie Brittle



This is the proposed plan for Dixie. How does your plan compare?

- Calcium and Vitamin D
- Counselling
- Medication
- Follow Up**

What's in a name?

**Follow Up**



You let Dixie know that you can discuss a possible "drug holiday" in five years.

You advise her to call if any concerns.

## Counselling (Slide Layer)

**SCFPCLearn**

### Dixie Brittle



This is the proposed plan for Dixie. How does your plan compare?

- Calcium and Vitamin D
- Counselling**
- Medication
- Follow Up



*What's in a name?*

**Counselling**  
You let Dixie know that a repeat BMD test is not required. You ask her thoughts on taking the medication after having discussed the risks and benefits. She is agreeable to starting alendronate.

## Calcium and Vit D (Slide Layer)

**SCFPCLearn**

### Dixie Brittle



This is the proposed plan for Dixie. How does your plan compare?

- Calcium and Vitamin D
- Counselling
- Medication**
- Follow Up



*What's in a name?*

**Calcium and Vitamin D**  
Dixie eats very little dairy products. You prescribe vitamin D 1000 IU PO daily and calcium carbonate 1gm PO daily.

## 2.17 References

CFPCLearn

# References



Thanks for visiting the clinic!

References are available [here](#).

This activity is eligible for up to 0.25 Mainpro+ credits.

