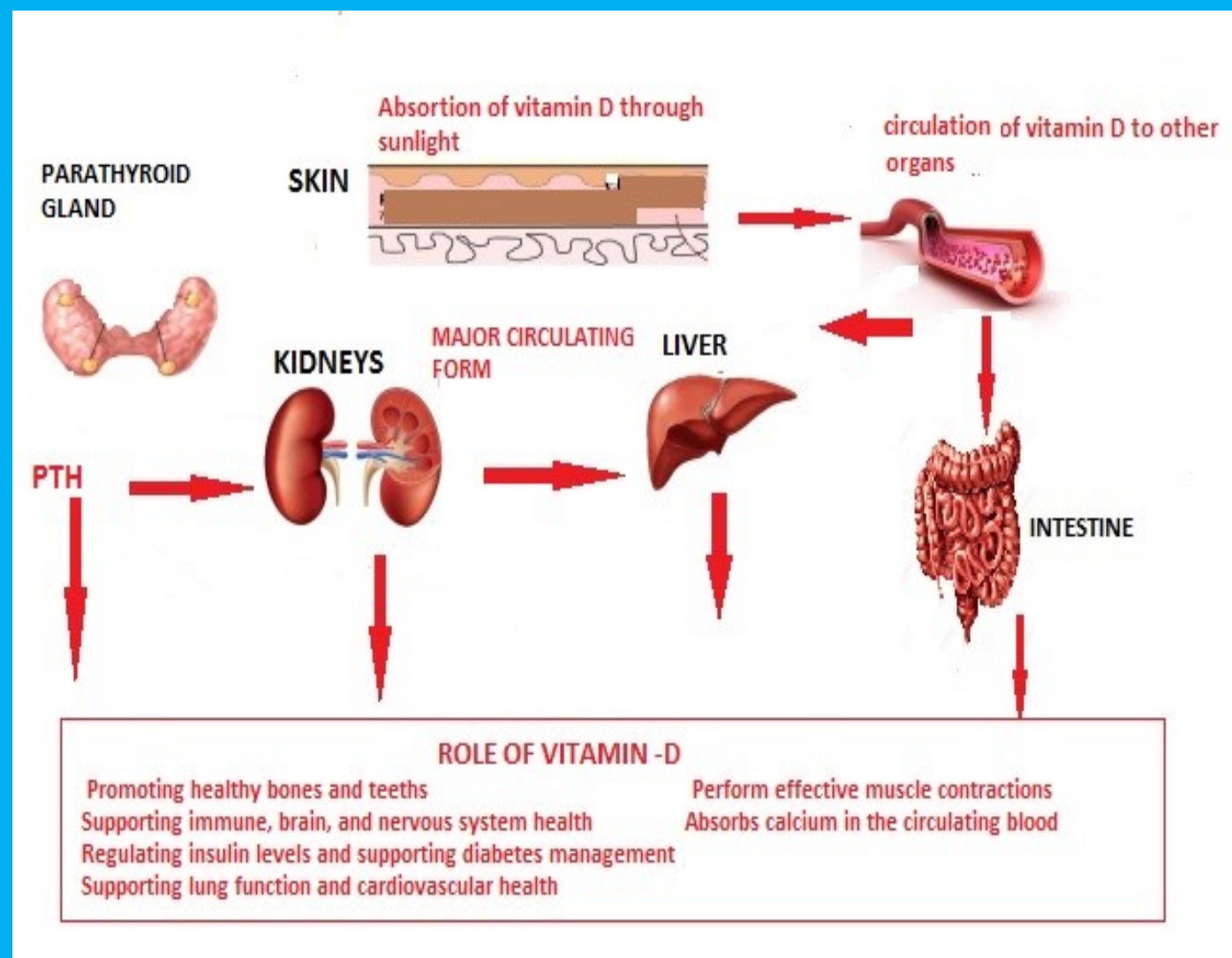




IMPORTANCE OF VITAMIN D AND EXERCISES – SERIES 1

HOW VITAMIN D WORKS?



WHAT HAPPENED IN VITAMIN D DEFICIENCY

MUSCLE WEAKNESS **CONSTANT RESPIRATORY PROBLEMS** **SWEATY HEAD IN CHILDREN** **HYPER TENSION** **LOWER BACK PAIN**

CHRONIC KIDNEY DISEASE **BONE PAIN** **INFERTILITY** **PSORIASIS** **DEPRESSION**

MANAGEMENT OF VITAMIN D DEFICIENCY:

- Sun Light Exposure – 11am to 1 pm is the best time for sun light exposure
- Nutritional Intervention as in the chart
- Physiotherapy – Resisted Exercise Plays a major role in Vitamin D Deficiency explained in Series 2 and 3 (effective upper limb and lower limb exercises for vitamin D) Posters



IMPORTANCE OF VITAMIN D AND EXERCISES

SERIES 2

SOURCES OF VITAMIN D

Top 10 Foods Highest in Vitamin D

20µg of Vitamin D = 100% of the Daily Value (%DV)

1 Fish (Salmon)



142% DV (28µg) vitamin D per 6oz fillet

265 Calories

2 Cremini Mushrooms (Exposed to UV Light)



139% DV (28µg) vitamin D per cup

19 Calories

3 Fortified Milk



32% DV (6µg) vitamin D per 16oz glass

298 Calories

4 Fortified Milk Substitutes (Soy Milk)



29% DV (6µg) vitamin D per 16oz glass

160 Calories

5 Fortified Tofu



28% DV (6µg) vitamin D per cup

208 Calories

6 Fortified Yogurt



16% DV (3µg) vitamin D per cup

250 Calories

7 Fortified Breakfast Cereal



12% DV (2µg) vitamin D per 3/4 cup

96 Calories

8 Fortified Orange Juice



12% DV (2µg) vitamin D per cup

117 Calories

9 Pork Chops



10% DV (2µg) vitamin D in 1 pork chop

525 Calories

10 Eggs



6% DV (1µg) vitamin D in 1 large egg

78 Calories

EFFECTIVE UPPER LIMB EXERCISES FOR VITAMIN -D

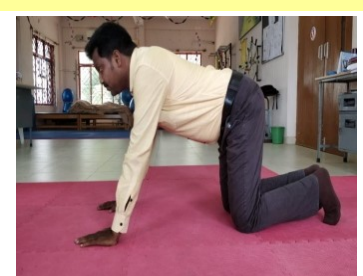
1. MODIFIED PUSH UPS



Step 1: Come to cat position as seen in the picture



Step 2: Bend your elbows, your tummy should go down as in the picture. Hold this position for 10 seconds



Step 3: Come back to starting position

2. PUSH UPS



Step 1: Lie on your tummy, place your hands & feet as shown in the picture



Step 2: straighten your elbow & Lean forward as shown in the picture, hold this position for 10 seconds



Step 3: Come back to starting position

3. WALL PUSH UPS



Step 1: Stand with feet apart, place both hands apart on the wall.



Step 2: Bend your elbows & lean forward as shown in the picture, hold this position for 10 seconds



Step 3: Come back to starting position

Repeat each exercises for 10 to 20 times per day

References :

1. <https://www.myfooddata.com/>
2. Clin med jourasl.org

Mrs. Rajachitra.S, Senior Physiotherapist, Department of Therapeutics, NIEPMD



IMPORTANCE OF VITAMIN D AND EXERCISES

SERIES 3

EFFECTIVE LOWER LIMB EXERCISES FOR VITAMIN -D

1. HALF SQUATTING



Step 1: stand with feet apart, rise your hand to 90 degree.(Shoulders level without bending elbows)



Step 2: Bend your knees & go down without leaning forward as like in the picture, hold this position for 10 second



Step 3: Come back to starting position

2. MODIFIED SUPPORTED SQUATING



Step 1: Support your back on the wall & stand with feet apart, rise your hand to 90 degree.(Shoulders level without bending elbows)



Step 2: Bend your knees & go down without leaning forward as like in the picture, hold this position for 10 second



Step 3: Come back to starting position

3. LUNGES



Step 1: Keep your right foot front & left foot at back



Step 2: Try to bend your knee of right foot(front) without bending your left foot as like in the picture, hold this position for 10 second



Step 3: Come to starting position & change your foot

Repeat each exercises for 10 to 20 times per day