

# Reflexology Pilot Study on Cancer Patients in Hospitals



Dr Martine Faure-Alderson

# Introduction



# Who's involved?

- Paris – Curie Institute
- Reykjavik –Landspítali -UNIVERSITY HOSPITAL
- Sydney – Adventist Hospital
- Perth - Charles Gairdner Hospital

# Who's involved?

PARIS - Curie Institute

Ongoing work for 5 years



Antoinette





# Who's involved?

- REYJKAVIK – Hospitali

Ongoing work 6 months



Bjorg Skarphedinsdottir



Eyglo Benediktsdóttir



VigdHelga Eyjodóttir



Guberg Hafsteinsdóttir



Sigrið Söndsdóttir

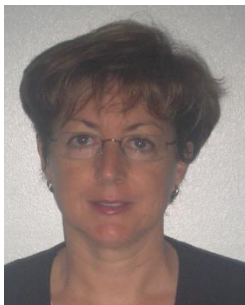
# Who's involved?

- **SYDNEY** - Sydney Adventist Hospital

Ongoing work 18 months



Gretel Spiegel



Kim Rusten



Ann Aiken



Helen Dove



Karina John

Gay Wickens

# Who's involved?

- **PERTH – Charles Gairdner Hospital**

Ongoing work 6 years



Brigette Johnson



Solaris Cancer Support Centre

# Researchers

## Qualities required of researchers

- Humane
- Compassionate
- Patient
- Persistent
- Consistent
- Diligent



# Techniques

Paris	Cranio-Sacral Reflexology (CSR)
Reykjavik	Cranio-Sacral Reflexology (CSR)
Sydney	Ingham, CSR
Perth	Ingham

# Why use Cranio-Sacral Reflexology for treatment of Cancer patients?

The Immune System is the major cancer defense of the body

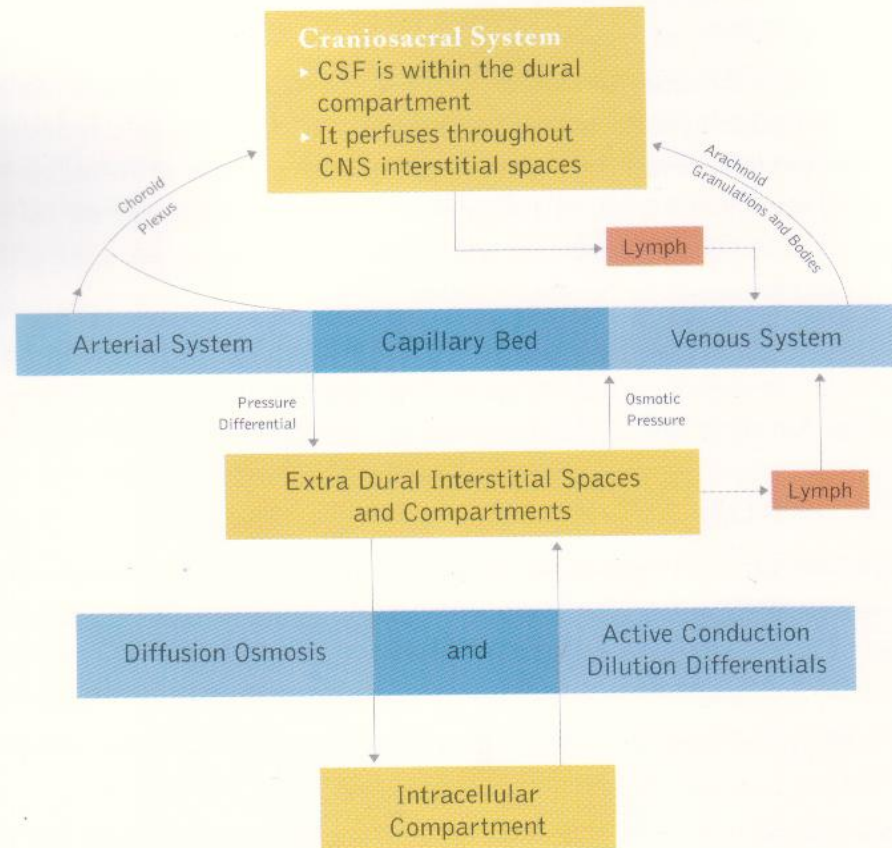
When a tumour is recognised by the immune system, there are measurable changes in the;

- Hypothalamus
- Limbic system (emotional centre)
- Electrical potential in the locus coeruleus and nucleus raphae centralis ( in the pons which produces serotonin)

These are all components of the Cranio-Sacral System

- The link between the Cranio-Sacral System and the Immune System is outlined in the next slide

# GENERAL DIAGRAM INDICATING THE FORMATION PATHWAYS OF BODILY FLUIDS



Water is the solvent.

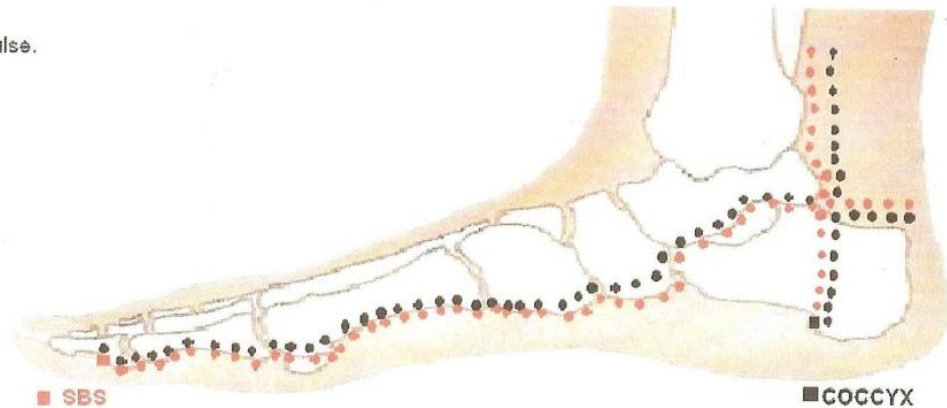
# Cranio-Sacral Therapy in Reflexology

- Basic Protocol
  - Spinal reflex a little different
  - Reflexes are much more detailed on the toes to discriminate sutures, membranes and area of the brain.



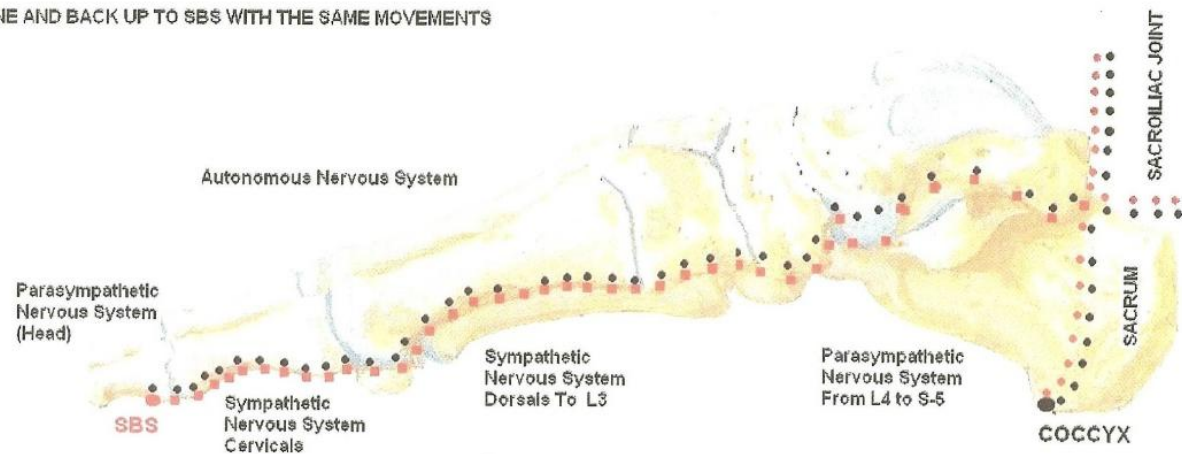
# 1ST. STEP WORKING SBS - COCCYX

1. Hold the ankles to feel the pulse of the spinal fluid.  
If one leg is longer than the other, gently pull the shorter leg.
2. Massage the toes by generally squeezing upwards.
3. Hold one finger on the SBS and another on the COCCYX to feel the pulse.

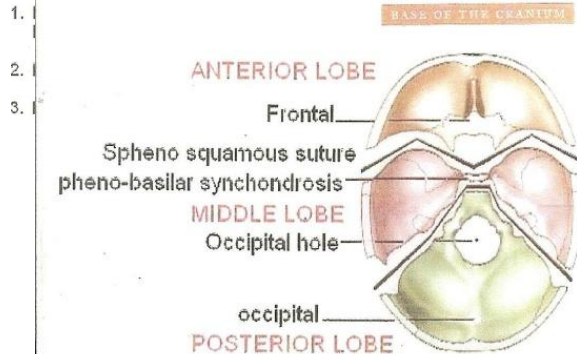


■ 1. START AT SBS, WORK DOWN JUST UNDER THE BONE TO THE COCCYX WITH SLOW, MINUTE, CIRCULAR THUMB-WALKING TYPE MOVEMENTS.

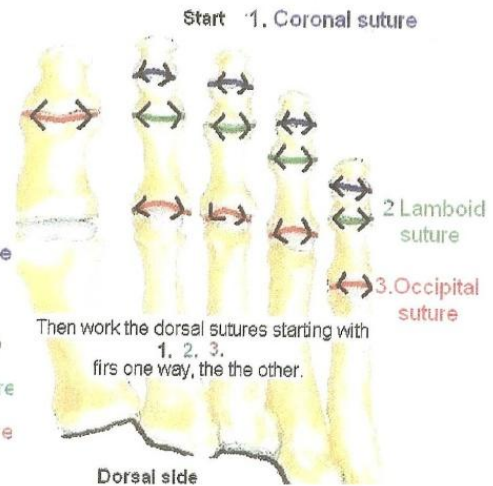
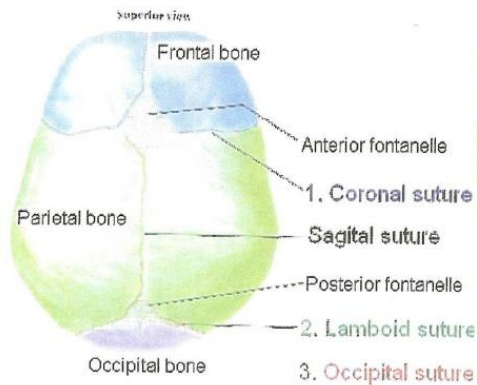
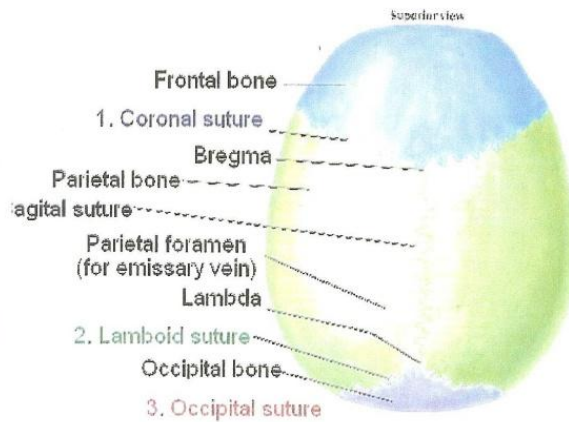
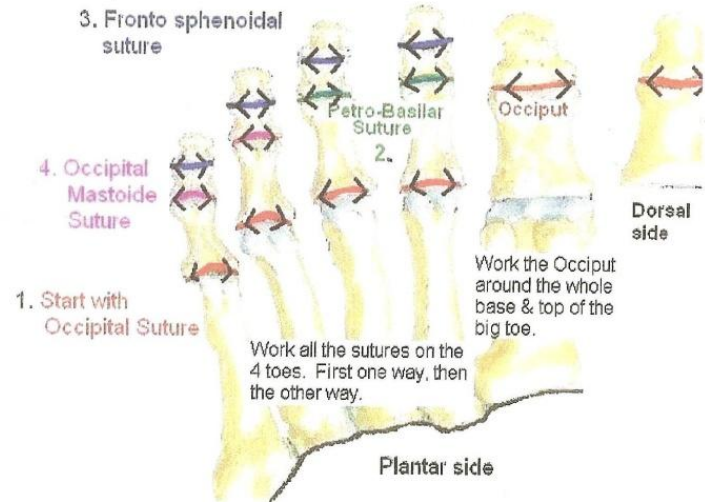
■ 1b. FROM THE COCCYX WORK ON THE BONE AND BACK UP TO SBS WITH THE SAME MOVEMENTS



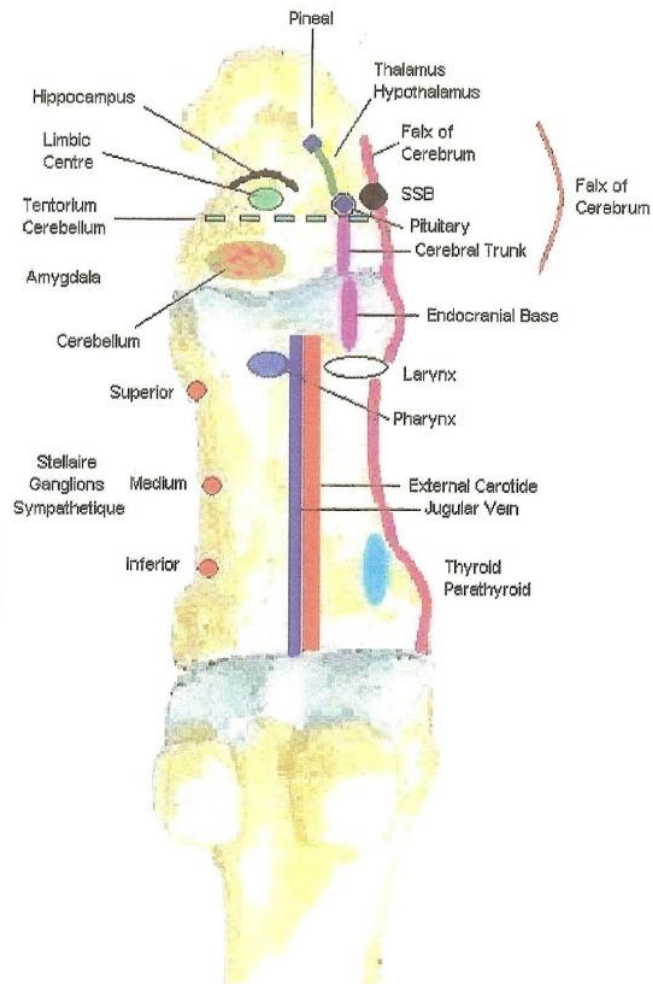
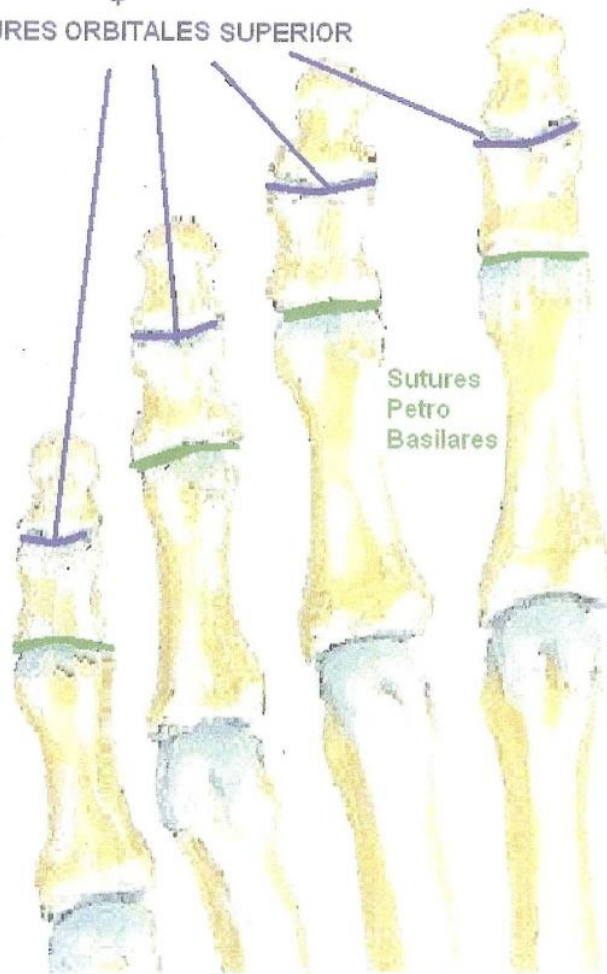
## 2ND. STEP (# 5) WORKING THE WHOLE OCCIPUT & SUTURES



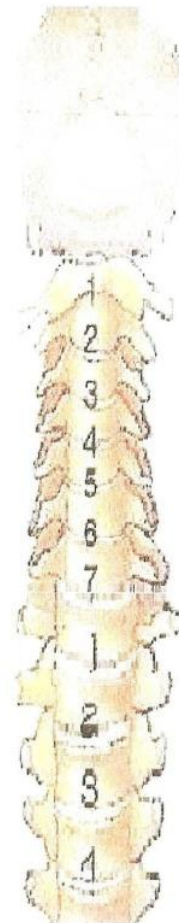
Fronto sphenoidal suture  
Temporal  
Petrous basilar suture  
Occipital suture



FRONTO SPHENOIDAL SUTURE  
+  
FISSURES ORBITALES SUPERIOR

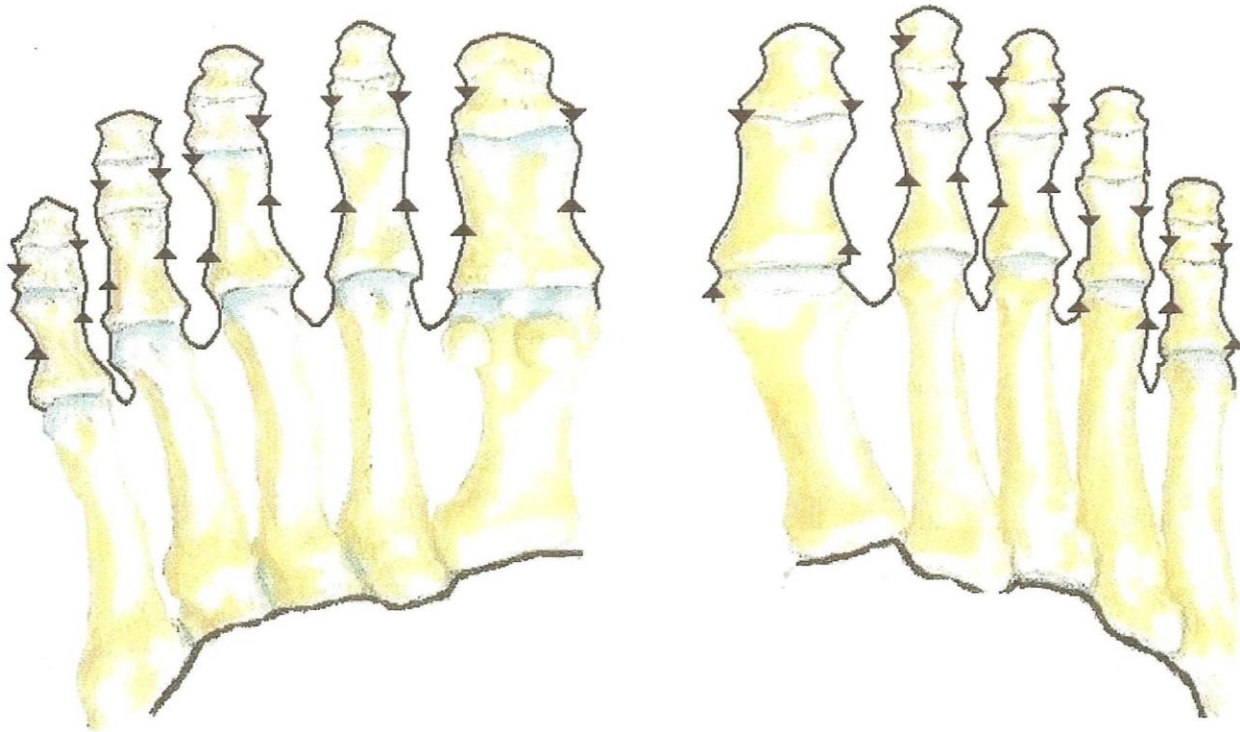


BIG TOE ENDOCRANIAL PART



3. STEP (#6)

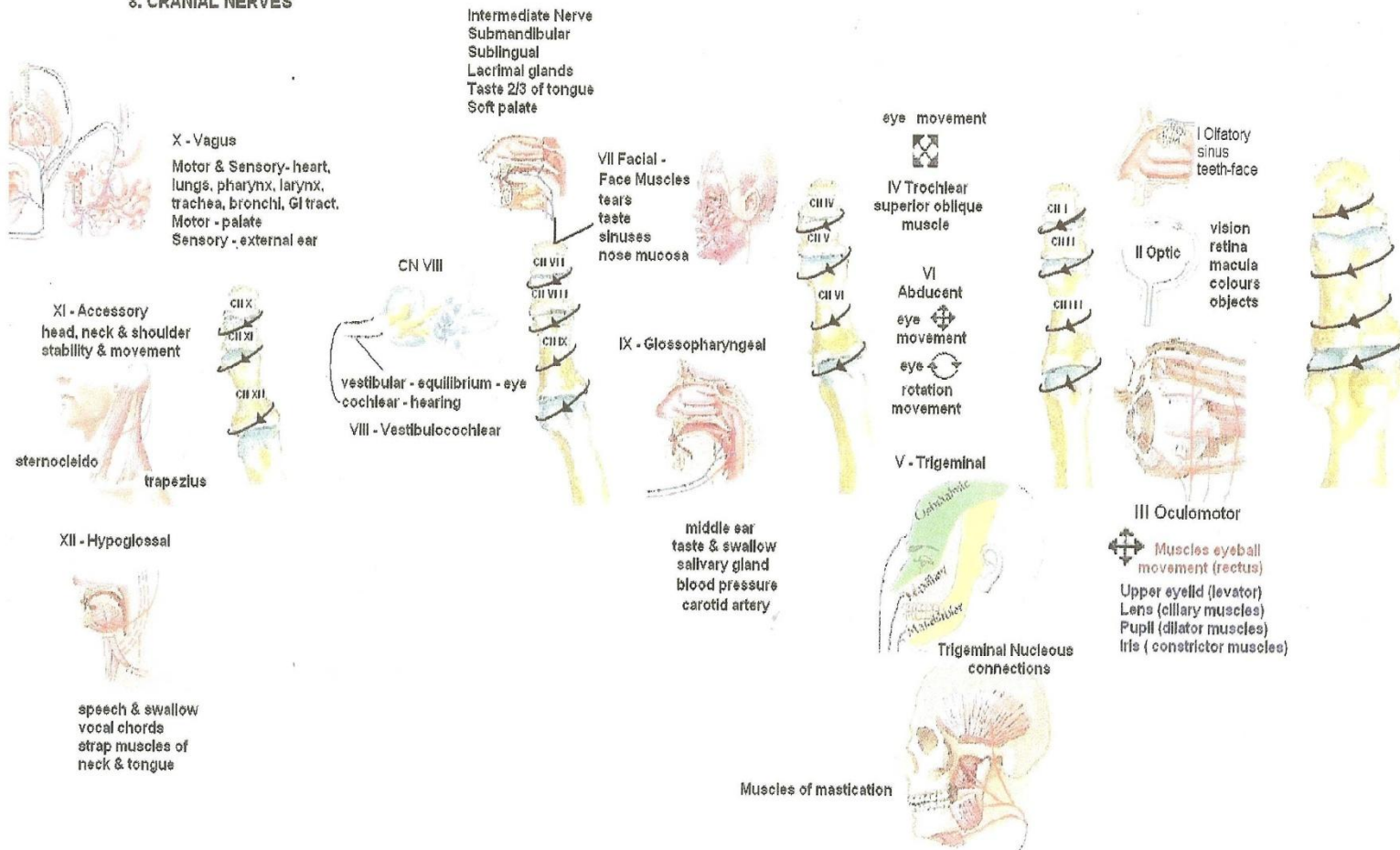
WORKING VERTICALLY AND WAVES MOTION



6. WORK VERTICALLY UP AND OVER AND DOWN THE SIDES OF EACH TOE IN THE WAVE MOTION MAKING SURE TO PRESS BETWEEN THE LATERAL LINE OF THE TOES SO AS NOT TO MISS ANY AREA.



## 8. CRANIAL NERVES

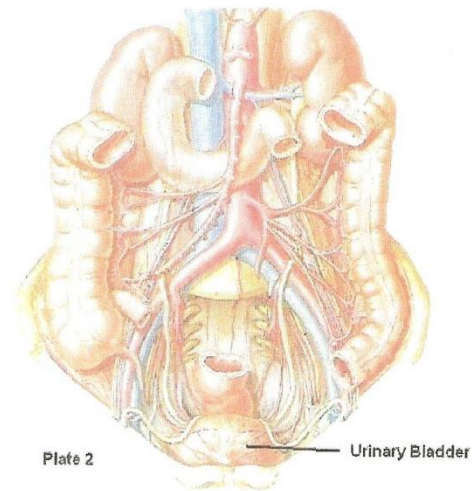
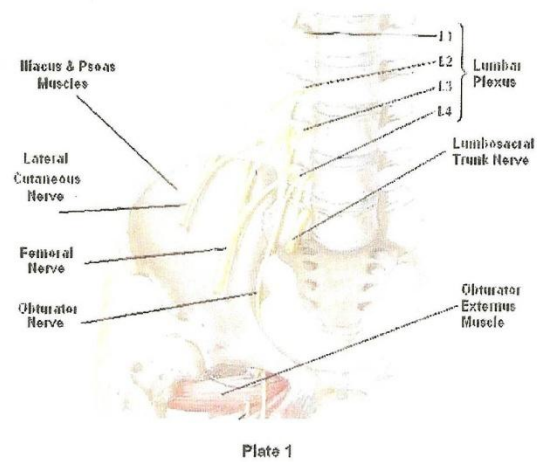
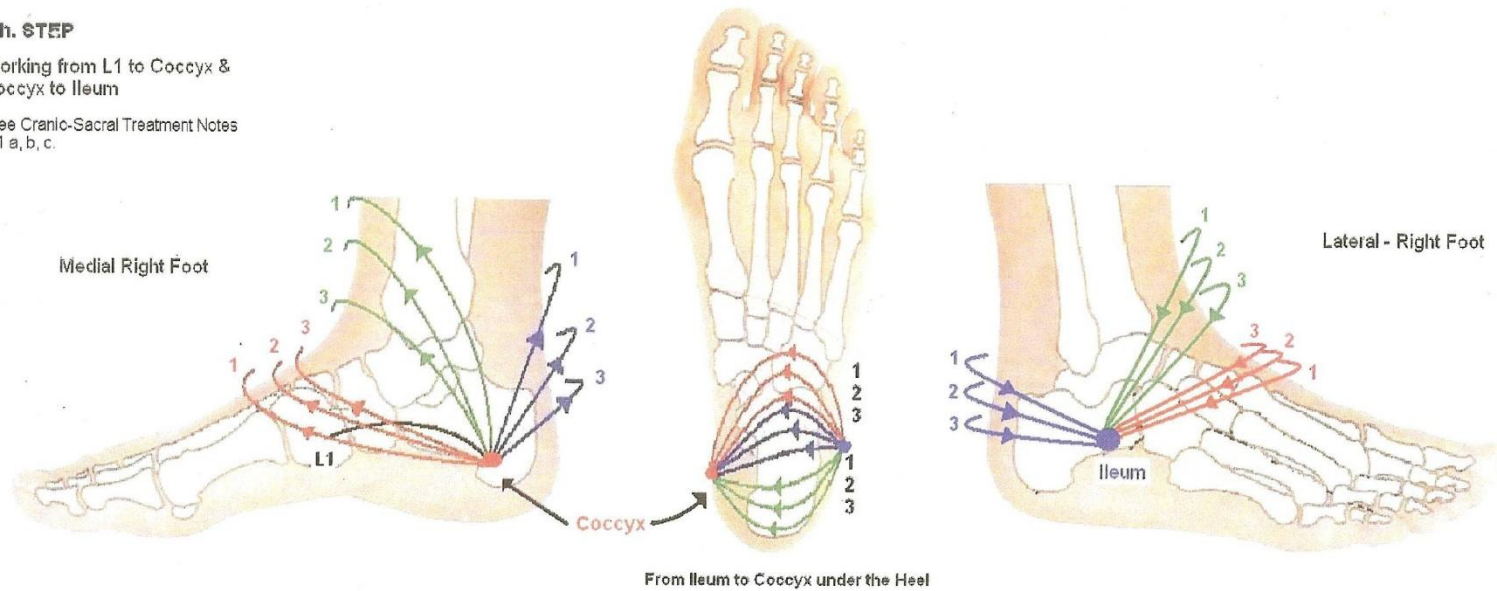


8. WORK IN A SPIRAL AROUND TOES 2 - 5. WORK NAILS WELL  
THIS IS WORKING THE CRANIAL NERVES.

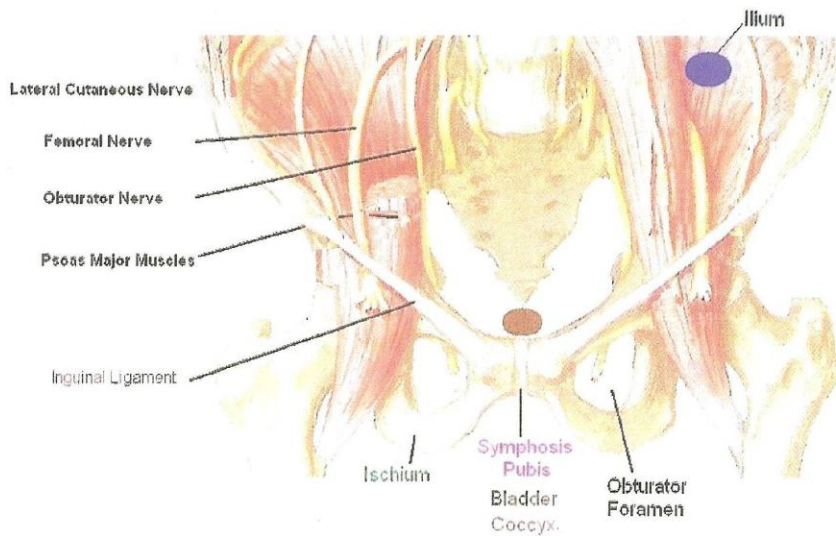
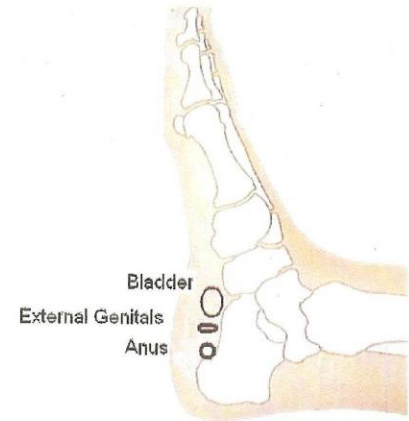
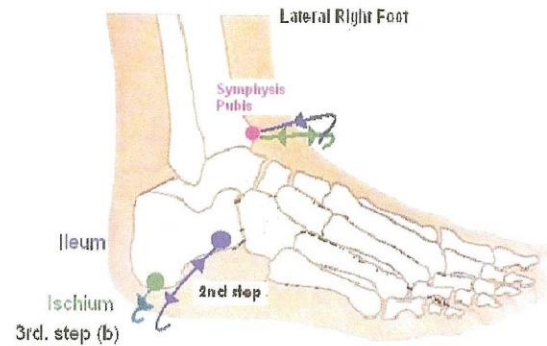
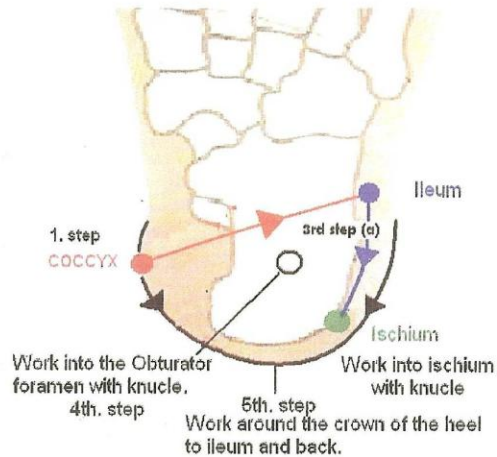
# 6th. STEP

Working from L1 to Coccyx &  
Coccyx to Ileum

See Cranio-Sacral Treatment Notes  
11 a, b, c.



## 7. STEP (# 12) - WORKING THE LOWER BODY - LUMBO-SACRAL (L1 -S5 - COCCYX)

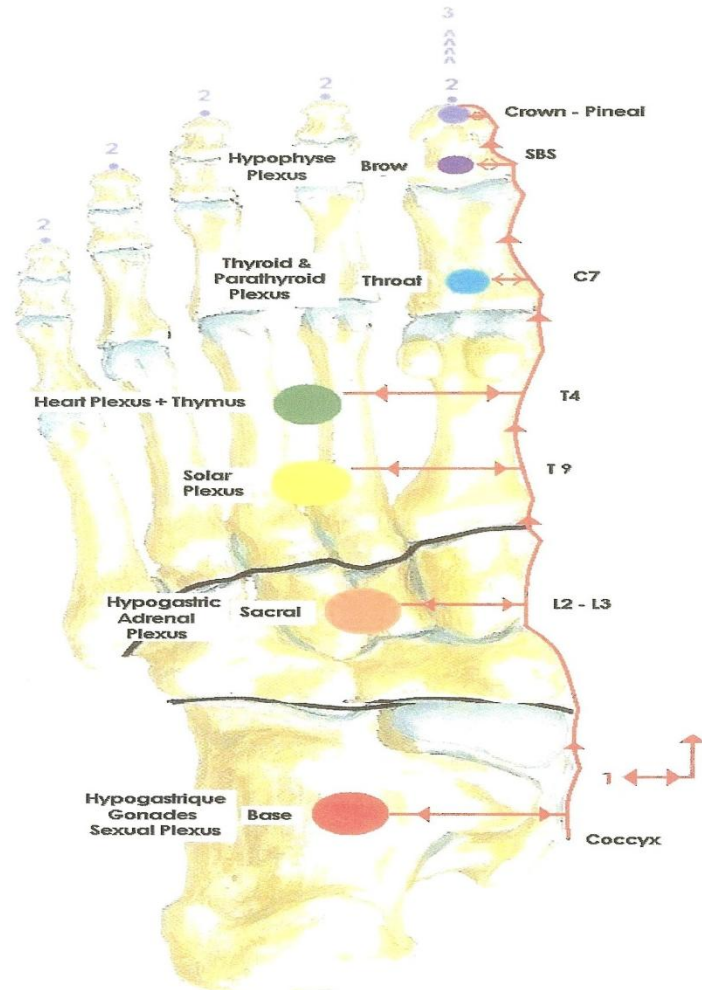


1. Work from coccyx under the heel to ileum.
2. Work from ileum under the heel up to symphysis pubis and back. Do this 3 times
3. Work from ileum to Ischium & work into ischium with knuckle. Work from Ischium under the heel, up to symphysis pubis and back. Do this 3 x
4. Work into obturator foramen, using knuckle.
5. Work bladder, external genitals (ovaries-testes) & anus. Continue to work around crown of heel to ileum and back. Repeat twice more squeezing with knuckles of 1st. & 2nd. fingers.

Pelvic Diaphragm: Pubic - Ligaments - Muscles - Ureter - Bladder - Vagina  
- Prostate - Rectum - Sigmoid Colon - Arteries - Veins - Nerves.



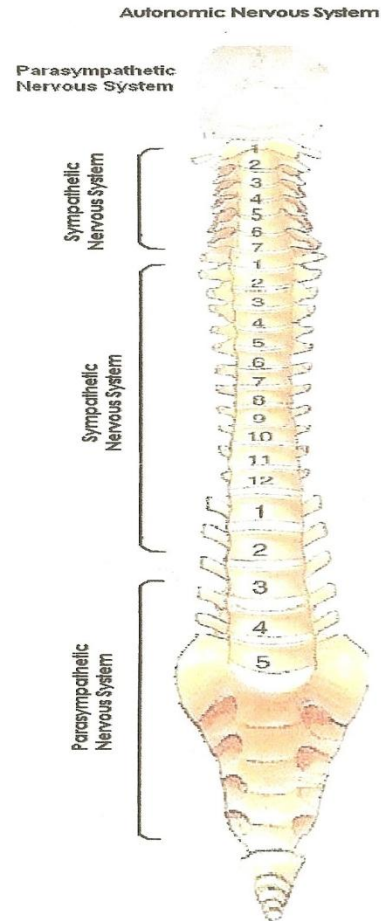
# **Cranio - Sacral Workout 4.a** **Working the Chakras (on both feet)**



Work from coccyx to the base chakra (i.e. in zone 3)  
 Work into point with knuckle. Work back to coccyx.  
 Work up spine to L2 and repeat the process.  
 Work up to T9 - T4 repeating the process.  
 Work up to C7. Work to mid point of hallaux.  
 Work into point with knuckle. Work back to C7.  
 Work up to SBS and repeat the process.  
 Work up to pineal reflex and repeat the process.

2. Also work the pineal chakra on the tops of all toes.  
 Work the nails well when coming back.
3. Squeeze the dorsal & plantar aspects of the pineal chakra  
 with thumb and finger.

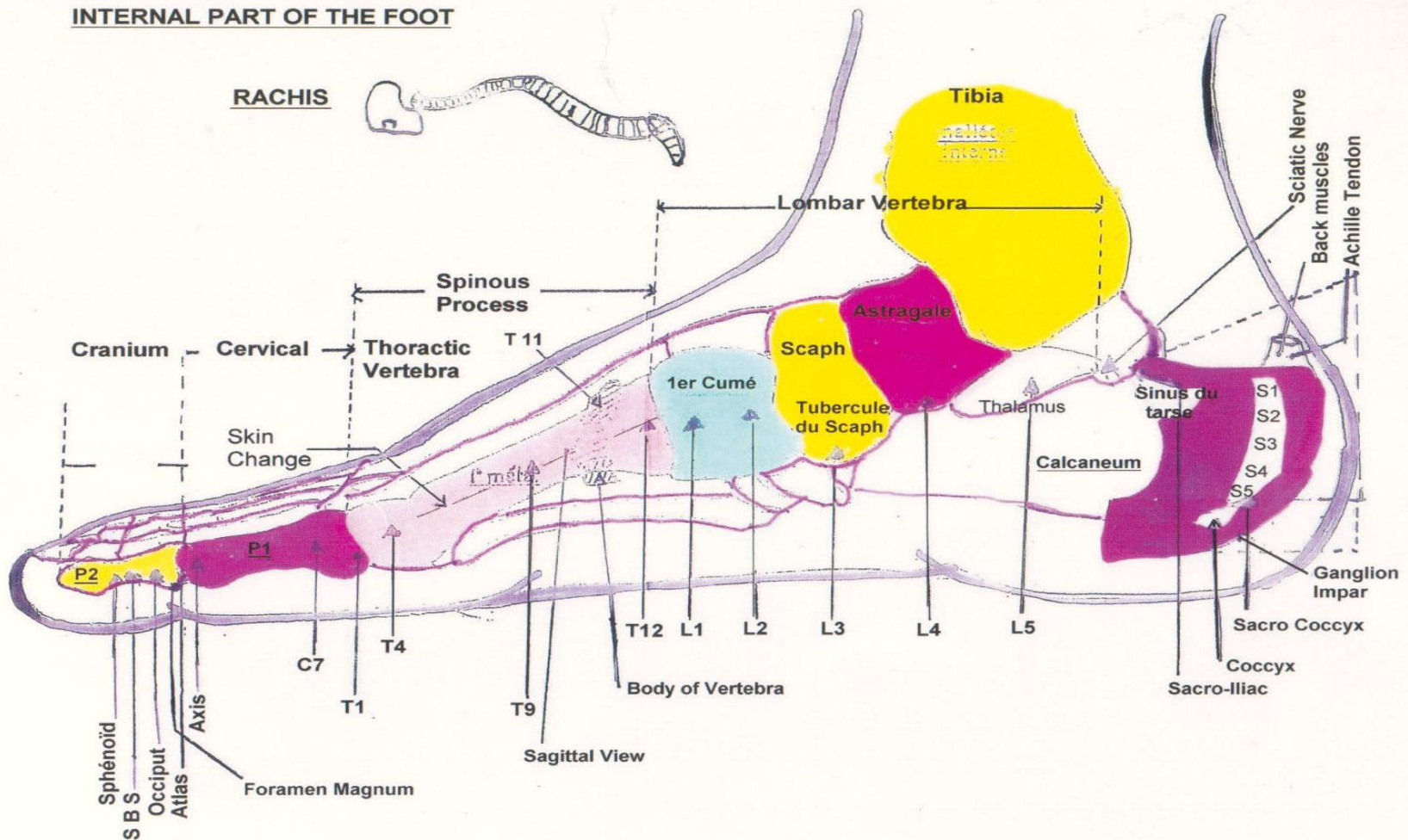
Pump the chakra to close it.  
 Repeat this for each chakra in turn, working down to the  
 base chakra.





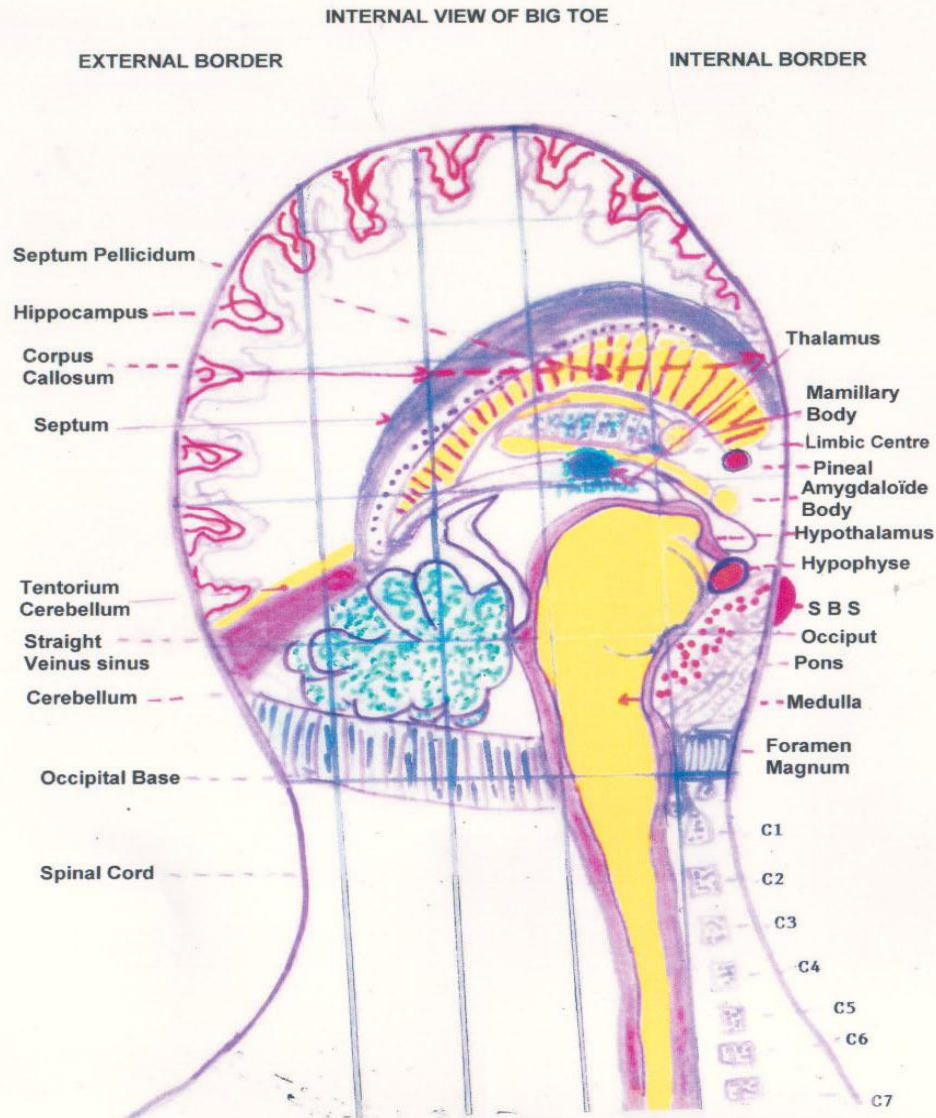
# Cranio-Sacral Therapy in Reflexology

## Spinal Reflex- a new perspective.



# Cranio-Sacral Therapy in Reflexology

## Big Toe detailed reflexes of the brain

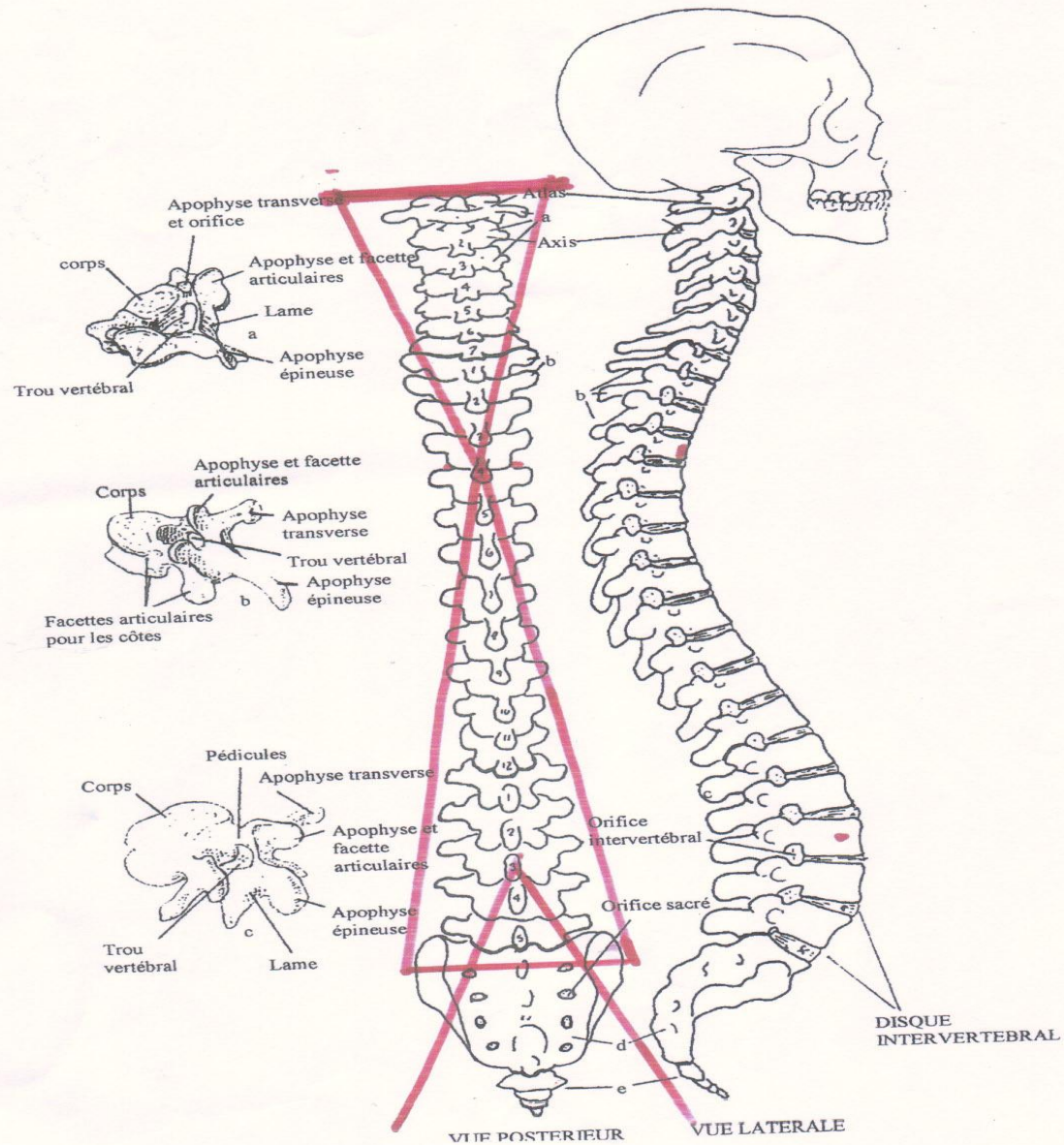


# Cranio-Sacral Therapy in Reflexology

- Advanced
  - Emotional fulcrums on the spine
  - Hip/shoulder Knee/elbow new perspective on reflexes
  - Stress factor in detail
  - Law of Herring

# Law of Herring

## SPINAL COLUMN AND ITS FUNCTIONS





# Cranio-Sacral Therapy in Reflexology

- Three Levels
  - Immune System – new protocol applicable to cancer
  - Cardio-vascular - new protocol
  - Emotional Links to vertebrae and organs

# Cranio-Sacral Therapy in Reflexology

## Lymphatic Chart 1

### LYMPHATIC SYSTEM PROTOCOLE OF TREATEMENT



fig 1

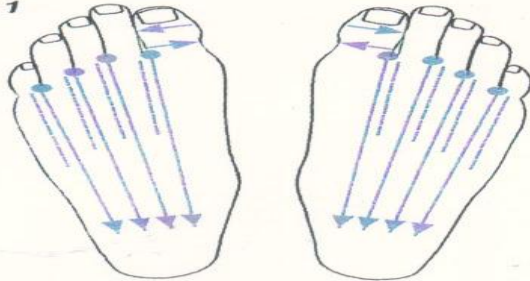


fig 2

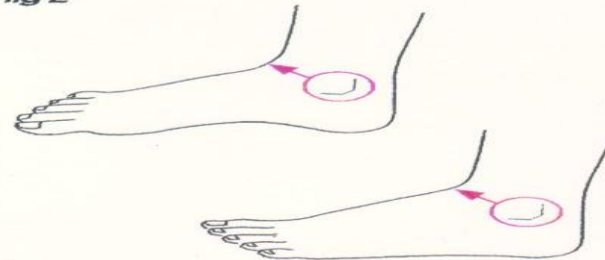


fig 3

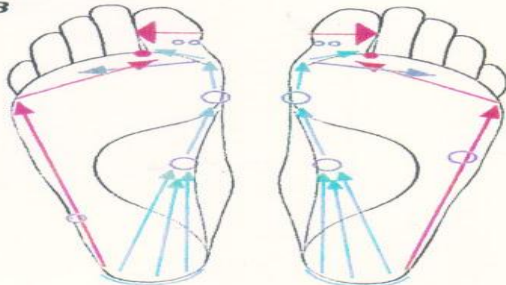
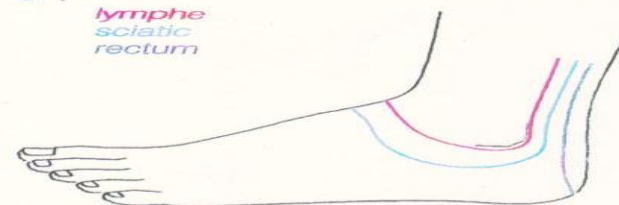


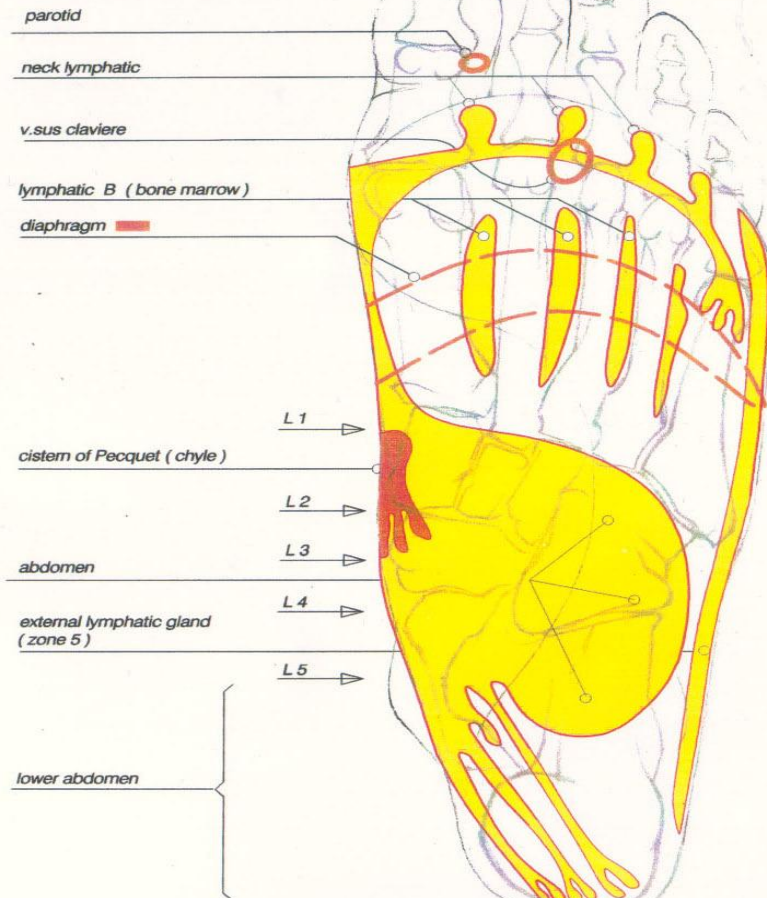
fig 4



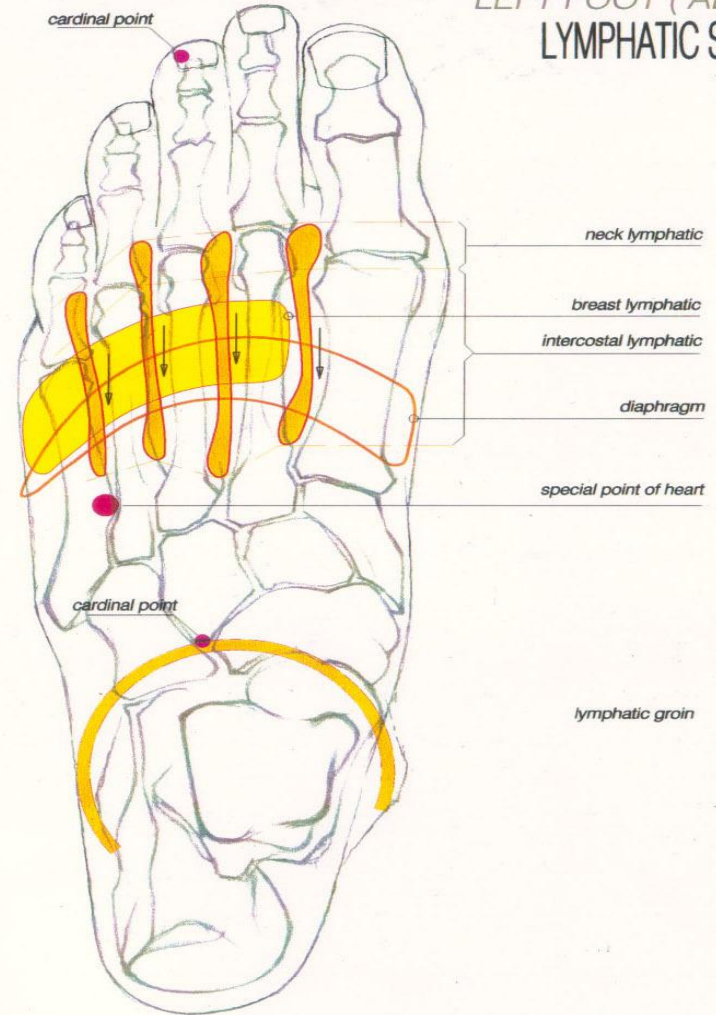
# Cranio-Sacral Therapy in Reflexology

## Lymphatic Chart 2

LEFT FOOT ( BELOW )  
LYMPHATIC SYSTEM

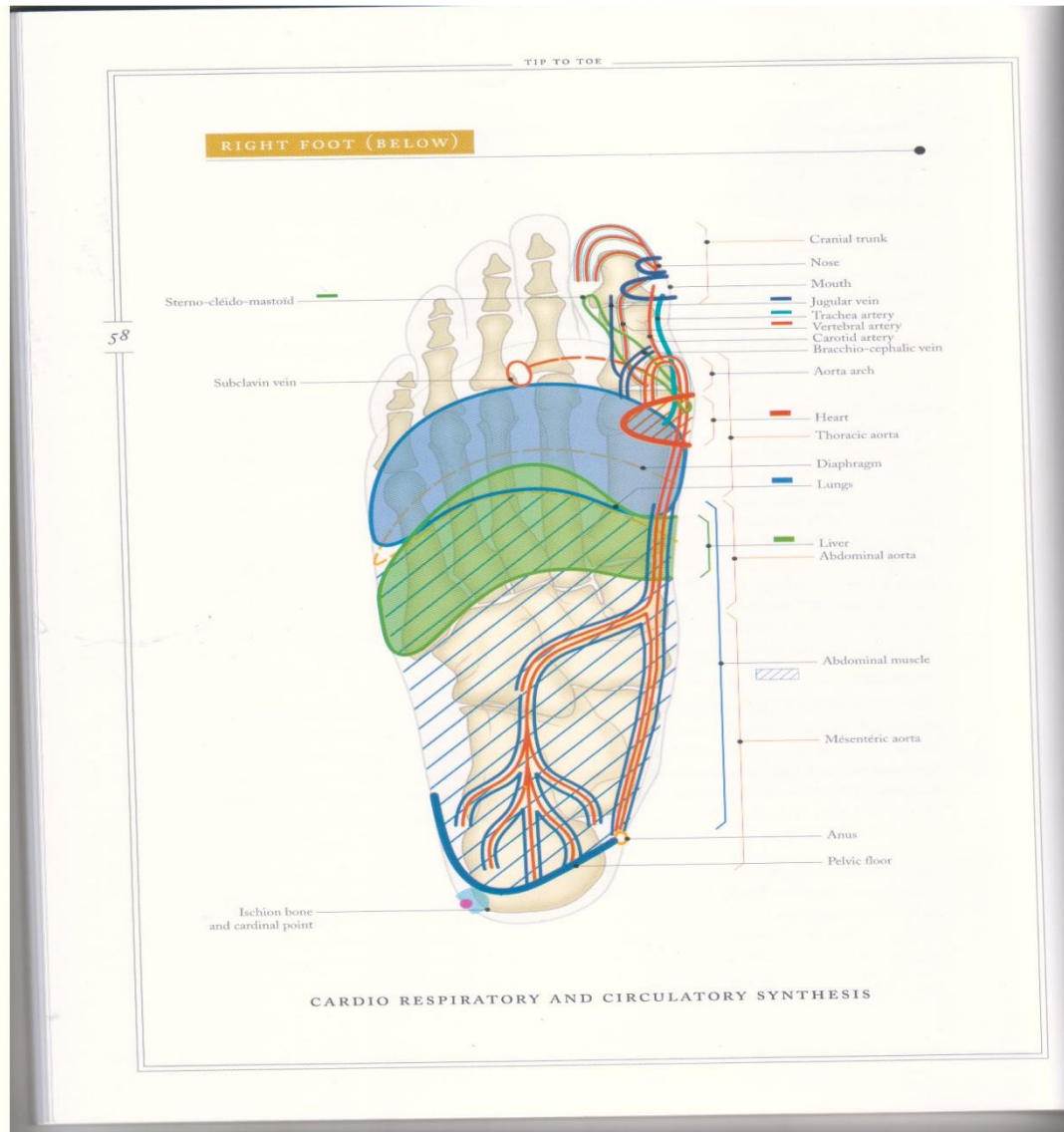


LEFT FOOT ( ABOVE )  
LYMPHATIC SYSTEM



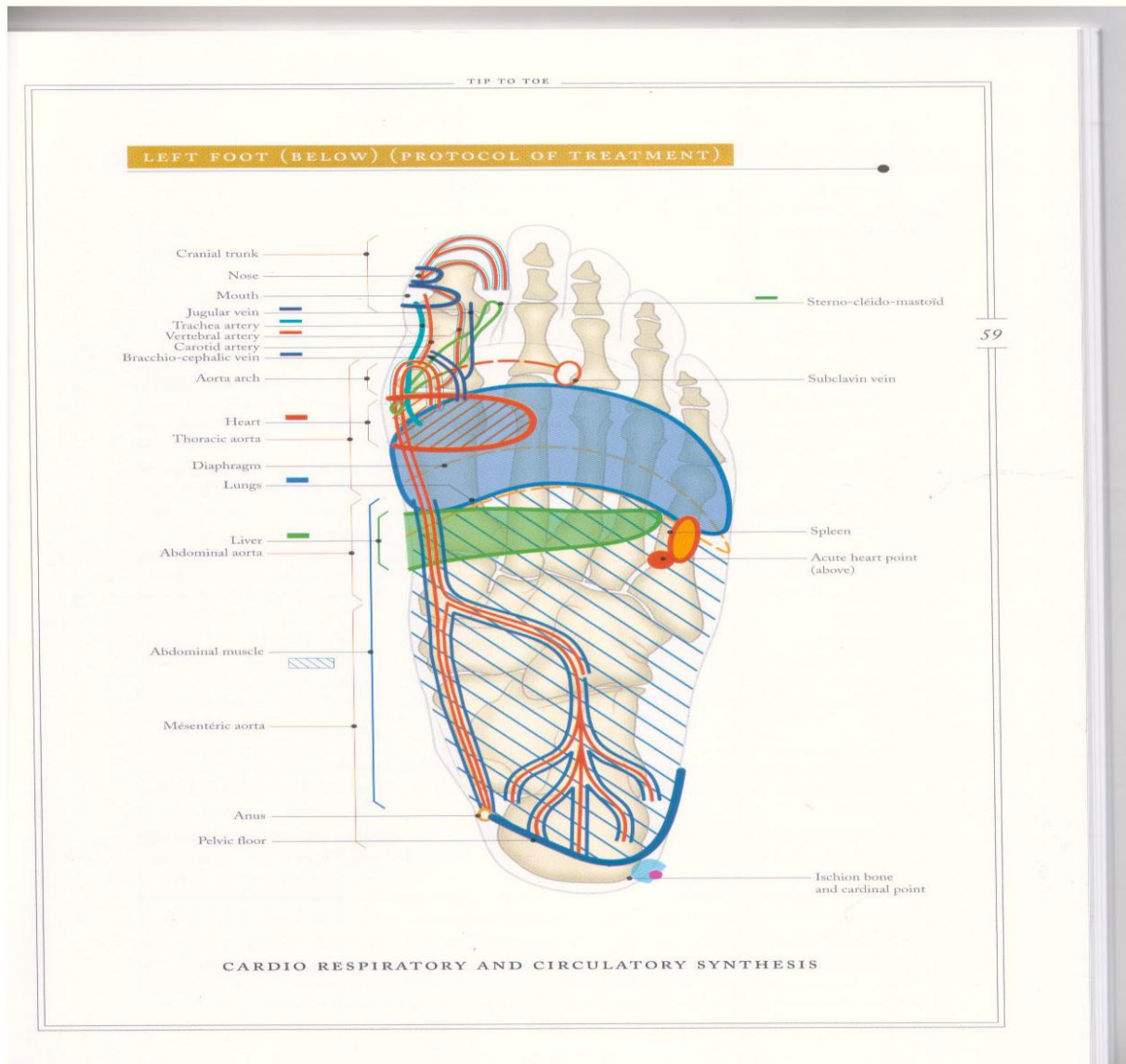
# Cranio-Sacral Therapy in Reflexology

## Cardiovascular Protocol Left Foot



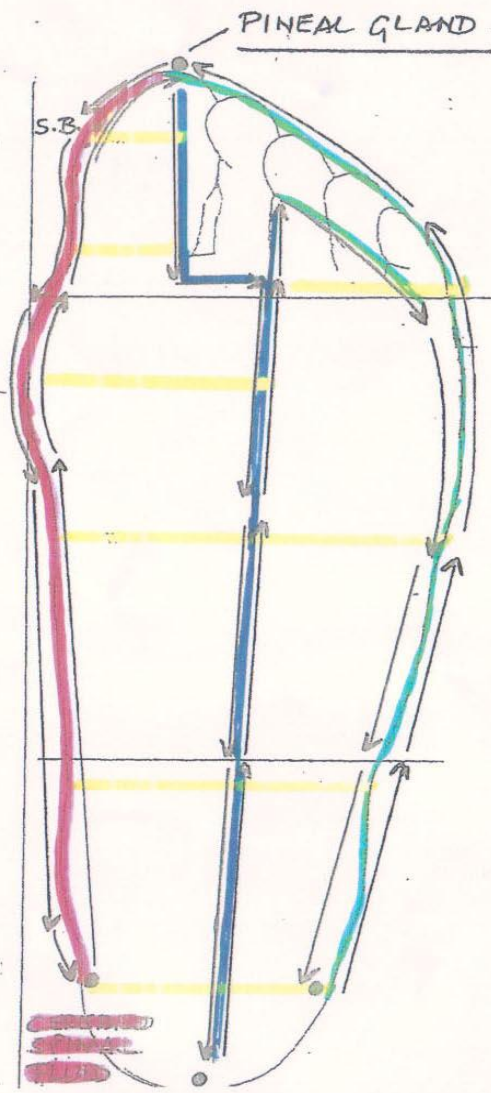
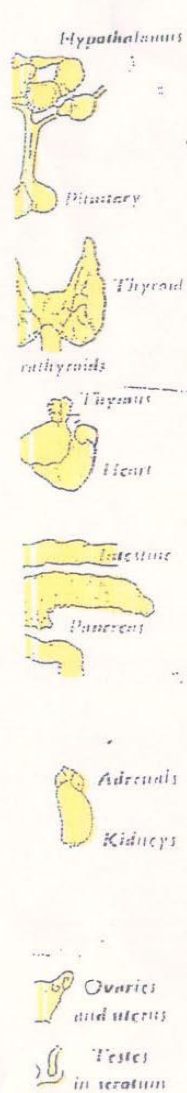
# Cranio-Sacral Therapy in Reflexology

## Cardiovascular Protocol Right Foot

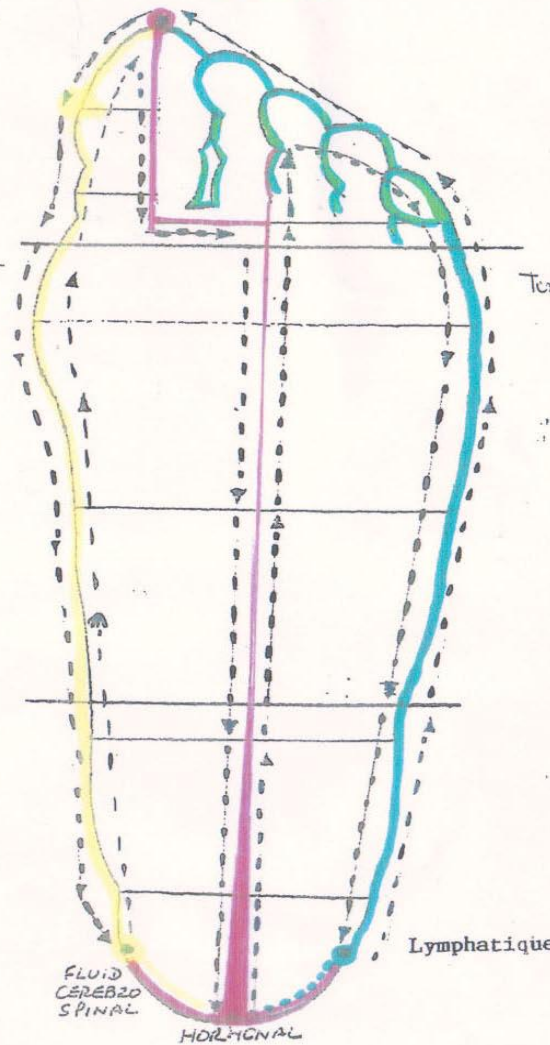




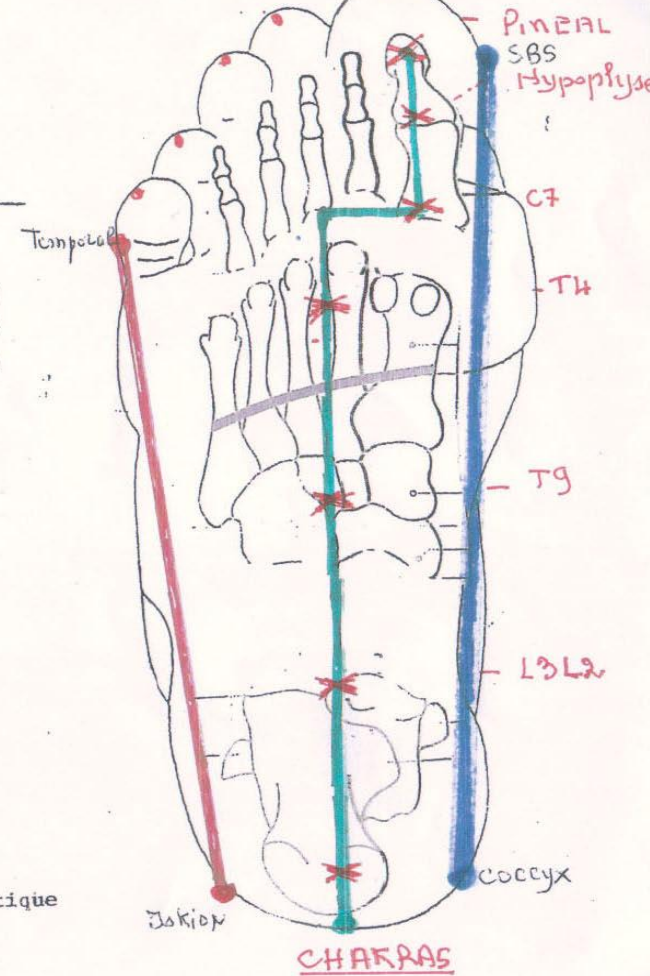
# Cardinal Points



## The Anatomy of the Craniosacral System



## CARDINAL Points





# Goals of the reflexology treatment

## Relief of Symptoms

- Pain
- Tumor markers
- Depression
- Anxiety
- Breathing (function)
- Nausea
- Hair Loss
- Needle Phobia
- Cannulation (ease of needle insertion)
- Bowel Function (Constipation)
- Neuropathy
- Feelings of well Being / Calmness
- Sleep Patterns
- Circulation (temperature/colour/healing ability of skin)
- Tension in neck, shoulders and back

# Goals of the reflexology treatment

## Change in Attitudes

- Attitude towards treatments like chemotherapy (more positive)
- Fear of death - Assistance in the dying process

# PARIS – Curie Institute



# PARIS - Findings

## 1. Nausea

- In spite of drugs given for nausea, patients still suffer a lot of discomfort from this symptom. In 92% of cases, reflexology dispelled this symptom with treatment each day for 2-3 days.

## 2. Sleep

- Instant improvement of sleep on the day of treatment was noted. The treatment lasts 3-4 days. The general sleep quality of patients was improved in 2/3 of patients and medication was reduced in 50% of cases.

## 3. Constipation

- Constipation is a major symptom of bed-ridden patients with cancer and those on heavy medication.
- A general, basic treatment of CSR was given every 4-5 days with immediate results in every case.

# PARIS - Findings

## 4. Tension on neck, shoulders, back and abdomen

### MUSCULO- SKELETAL

- CSR is especially effective in musculo-skeletal treatment because it can access the cerebro-spinal fluid, the dura, specific spinal and cranial nerves and the autonomic nervous system.
- The patients who were operated on the larynx, pharynx and ethmoid bone (smoking related cancers) experienced a lot of tension in the back of the neck, specifically on the nuchea ligament. 75% of patients received relaxation of the tension in this area on treatment of the cranium and sacral reflexes. The use of the 4 cardinal points was also used to harmonise the energy between these points in the body.

### GASTRIC

- The patients with surgery to the stomach with post surgery gastric tubing inserted, required reflexology treatment to AROUND the stomach reflex to avoid disturbing the tubes. Normally, (without reflexology) the tubing moves slightly with peristalsis bringing discomfort to the patient. Reflexology relaxes the stomach. Success in this area was noted at 80%



# PARIS - Findings

## 5. Lymphatic Drainage

- The Lymphatic protocol applied to patients with swelling of the abdomen or legs brought great reduction of fluid to 70% of patients. The effect however was not permanent, lasting 5-8 hours. It was well worth the effort as patients received a great deal of comfort and relief.

## 6. The Circulation of blood

- The CSR protocol for circulatory system was employed on patients as a finishing technique to assist in the feeling of well being. It proved particularly beneficial for patients legs and shoulders, improving colour and reducing unpleasant sensations such as burning, and itching of the skin, commonly a side effect of chemotherapy.
- The patients also reported feeling much lighter and more comfortable in bed.

# PARIS- Findings

## 7. Anxiety and Depression

- Working the reflexes of the ganglion impar (under the coccyx), ganglion of ribe (in the head) gave patients the feeling of euphoria. Stimulating both ends of the Sympathetic Nervous System is important in changing the states of both anxiety and depression. The amygdala and the hippocampus reflex situated on the big toe act as relay between the heart, the ten cranial nerves and the cortex. Working these areas releases anxiety and depression through release of serotonin from the pineal gland.

## 8. Moment before Death

- Terminal patients were treated very gently with the cardinal point technique also using the solar and heart plexuses.
- Everyone is afraid of death and these techniques reassure the patient. It is psychologically beneficial to have someone hold the feet or hands to relieve the fear of the unknown. It also allows a transfer of energy and compassion to facilitate the process of dying, solitude and peace.

# PARIS- Findings

## CREDIT

- The work of the Parisian team was presented at Euro-cancer in June 2006 – A 30min presentation was given to an international audience receiving high acclaim. The work was recorded in the Euro- cancer journal and disc.

# REYKJAVIK- Findings

- Ethics Committee approval granted July 2007.
- Pilot project commenced September 2007.
- Study underway for 9 months



# Iceland- Preliminary Findings

Outpatients were from the cancer ward and the  
Hematology ward

Reflexology is offered free of charge one day per week

One volunteer reflexologist serviced four clients  
per week and finished 14 clients

One volunteer reflexologist serviced three clients per  
week and finished seven clients

Three volunteer reflexologists serviced only one client  
each

The pilot study commenced December 2007  
Project has run for nine months

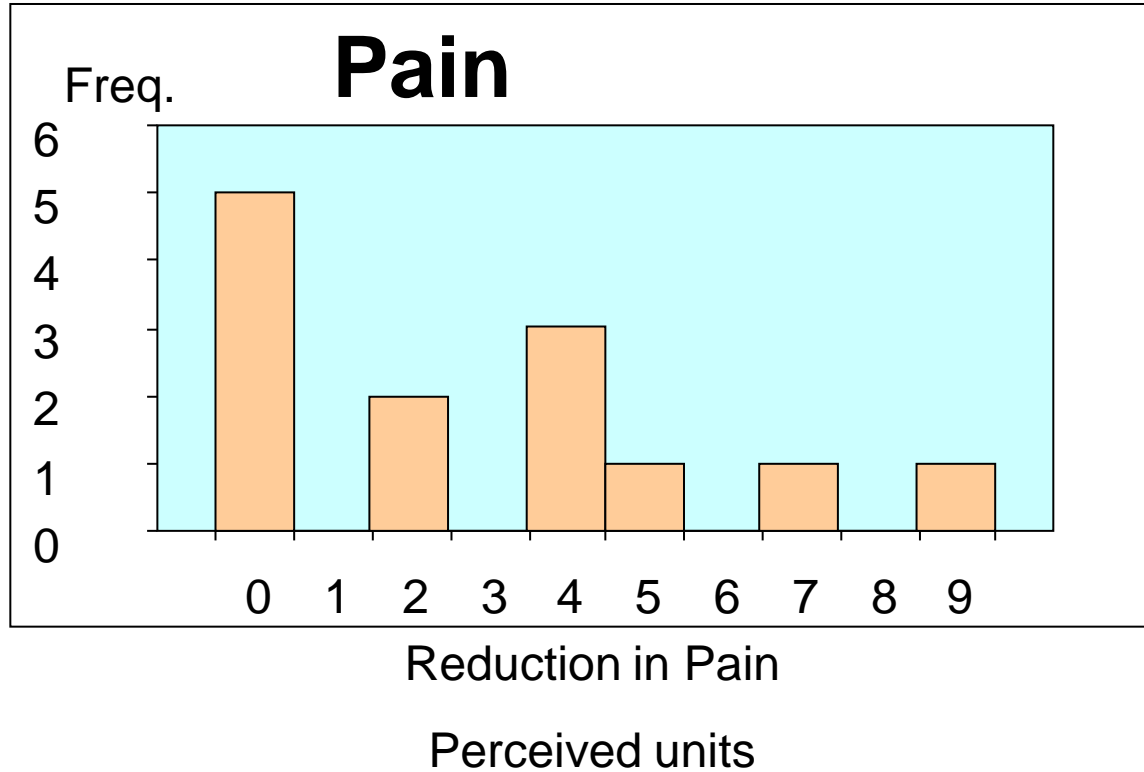
# Iceland – Types of Cancer

Type of Cancer	Number of people	Median Age
Breast Cancer	8	(54 – 66)
Lymphoma Cancer	8	(66-83)
Cancer	7	(43-74)
Belline (Kidney) Cancer	1	65

# Main Issues for Iceland Patients

- Neuropathy
- Pain
- Depression
- Anxiety

# Findings so Far



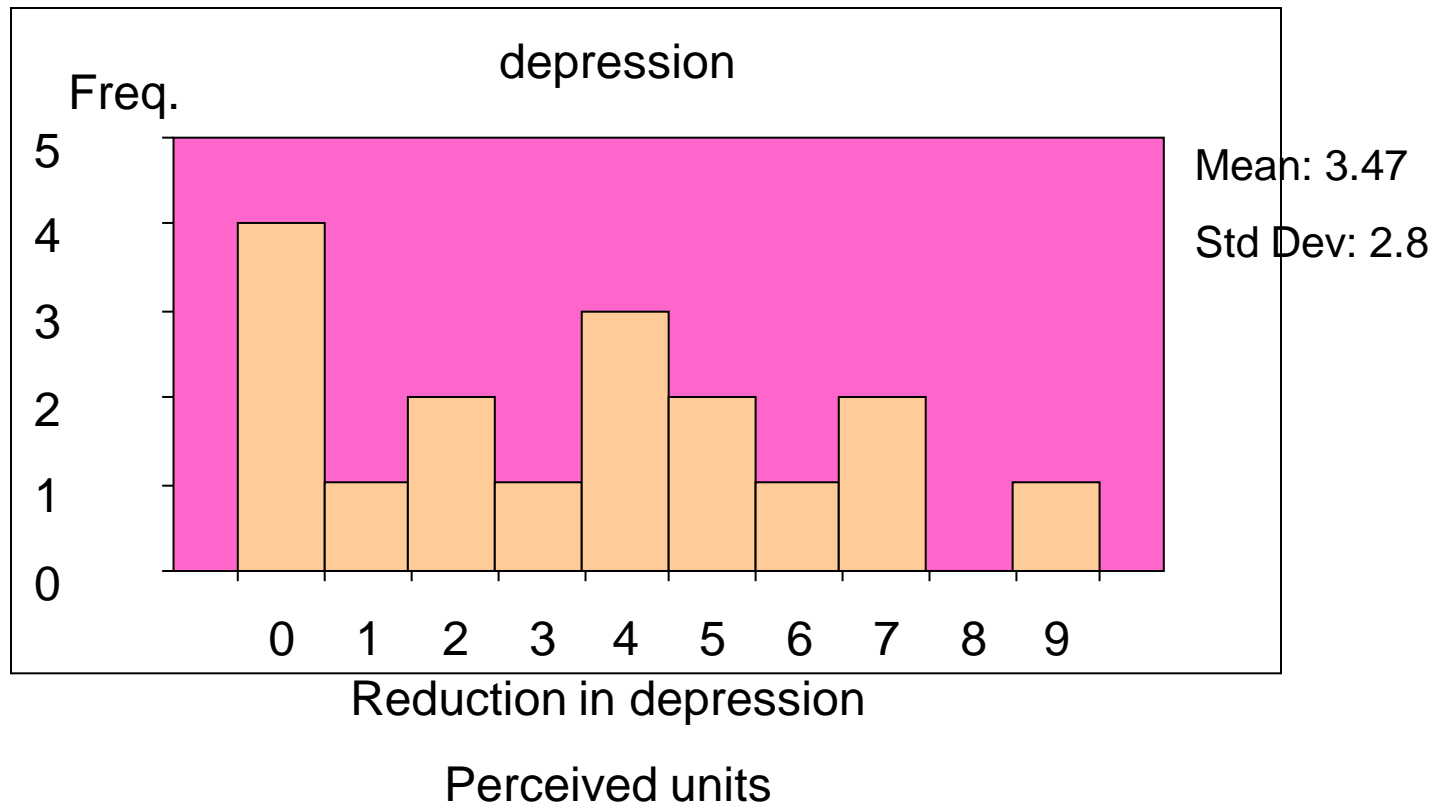
Mean:3.47

Std Dev: 2.95

NOTE: No improvement in Pain for 5 patients

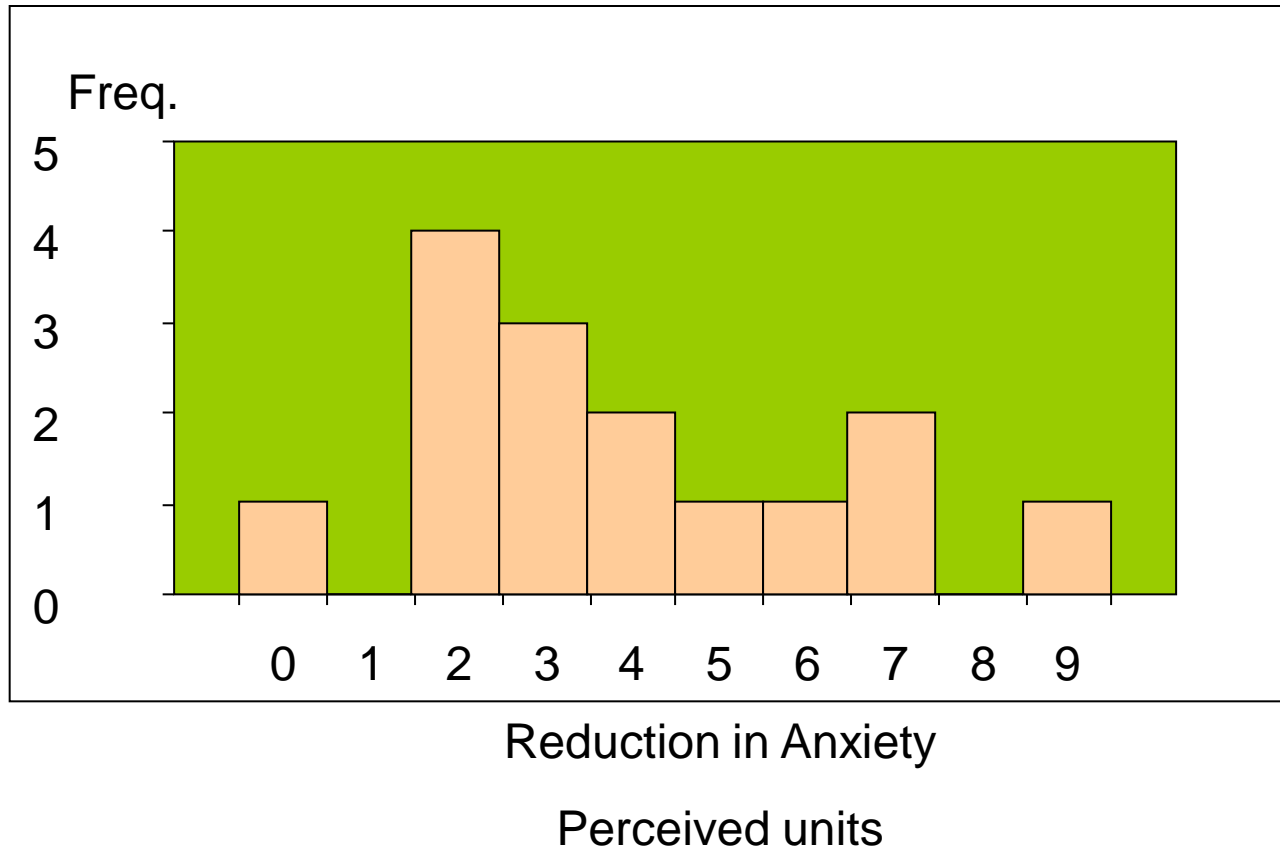


# Depression



Note: No improvement in depression for 4 patients

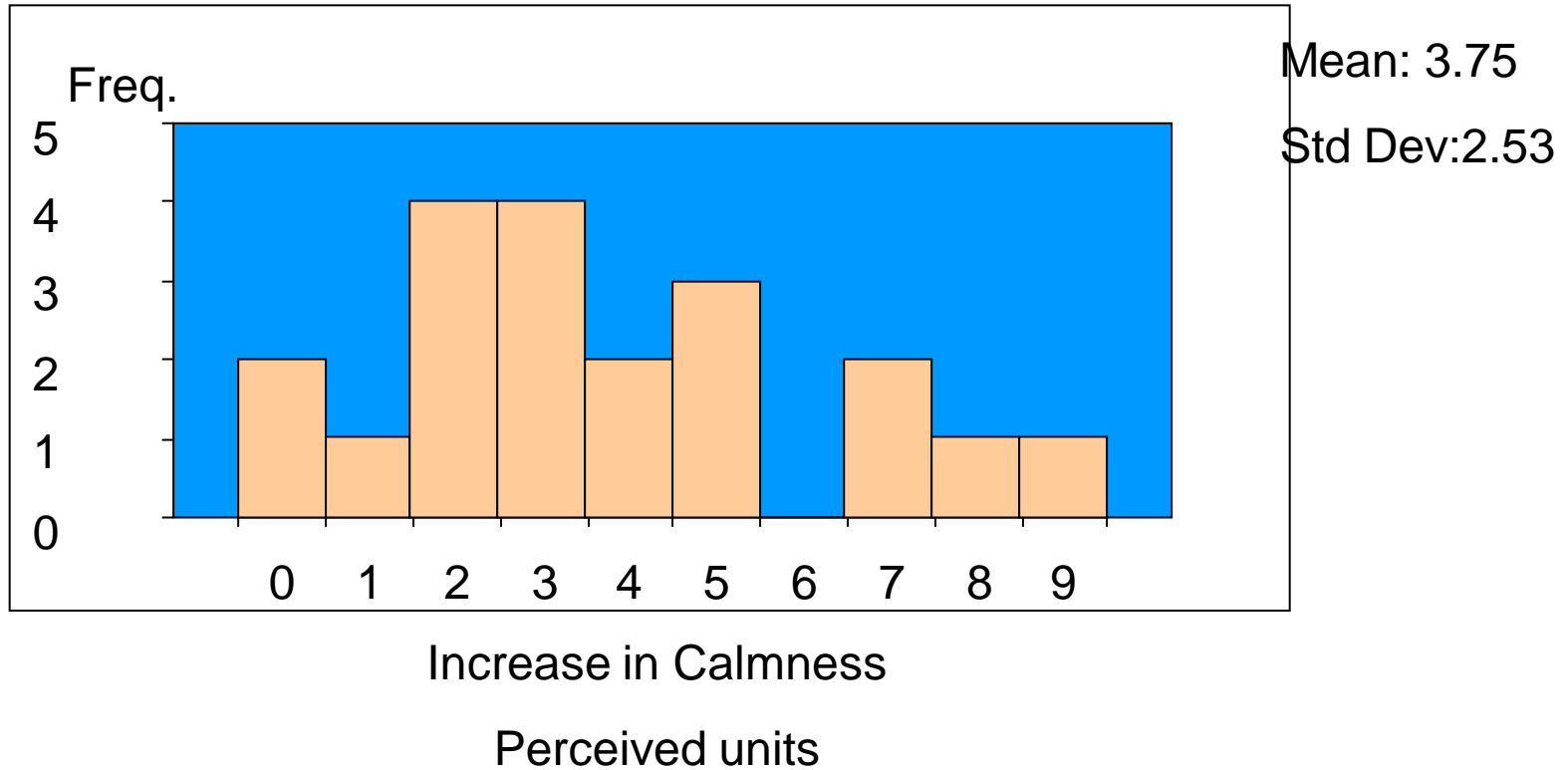
# Anxiety



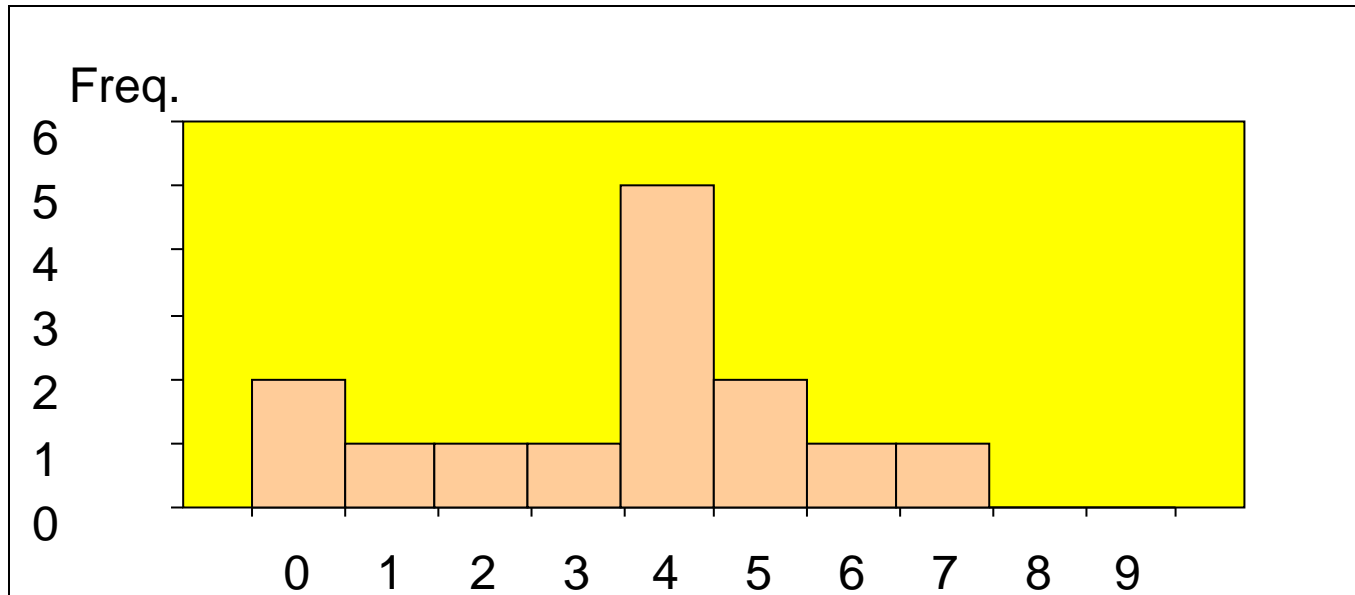
Mean: 3.93

Std Dev:2.43

# Calmness



# Neuropathy

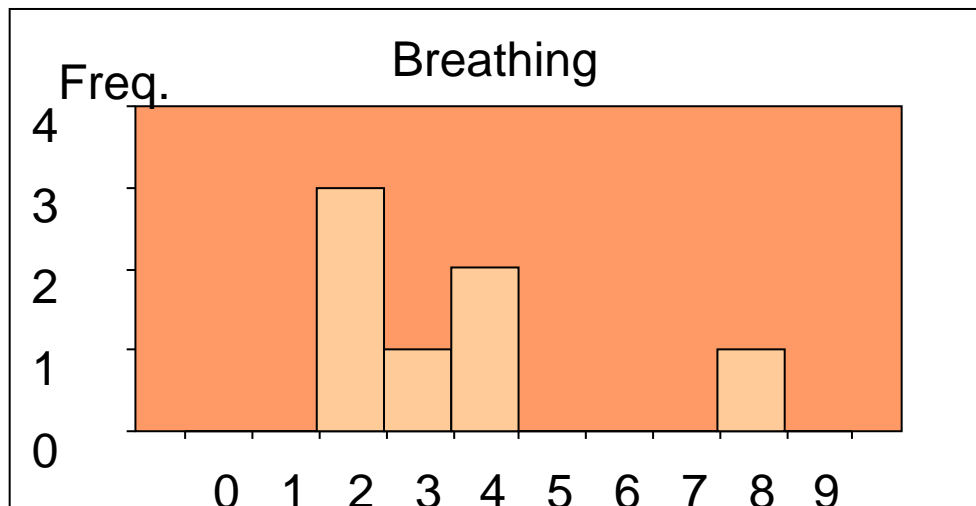


Mean:3.50

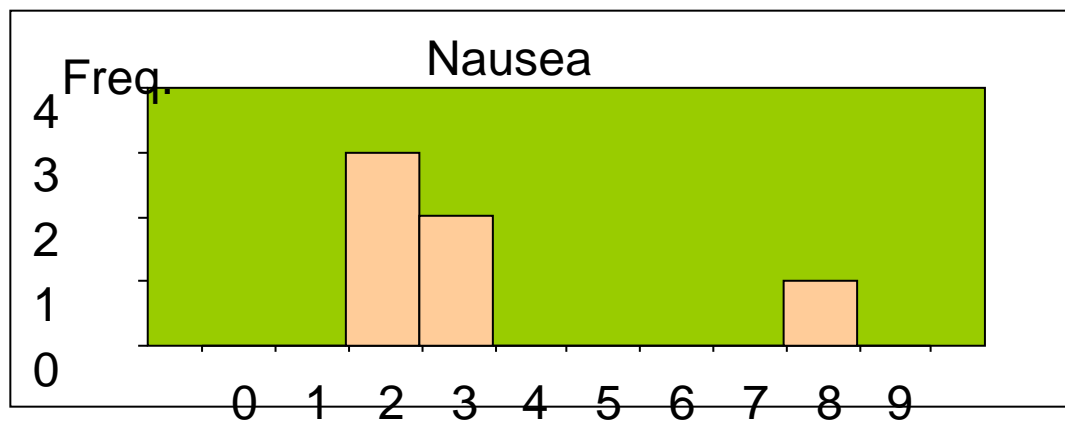
Std dev:2.10

Decrease in Neuropathy Symptoms

Perceived units



Mean: 3.5  
Std Dev: 2.3



Mean: 3.33  
Std Dev: 2.3



# Iceland- Findings

## Anecdotal Findings

- Very relaxing – reduces muscular tension
- Improves feeling of well-being & calmness
- Builds spirit and energy
- Helps with constipation
- Helps with neuropathy of hands and feet.
- Very supportive emotionally

# SYDNEY- Preliminary Findings

- Jacaranda Lodge is an outpatients cancer support centre in Sydney
- Reflexology is offered free of charge 3 days per week
- 5 volunteer reflexologists service 24 clients per week
- The pilot study commenced February 2007

# Collecting Data

- Patient Questionnaire
- Monitor progress of common symptoms of cancer and cancer treatment
- Sliding scale 0-10
- Statistical Analysis of information derived from this study

# About the project

## Participants

- Signed up : 55
- Males: 6
- Females: 49
- One or no treatments: 15
- Number of treatments received: 2-25
- Average number of treatments received: 7
- Age distribution : 39 – 81 years
- Average age 57
- Various stages of treatment

# Sydney- Types of Cancer

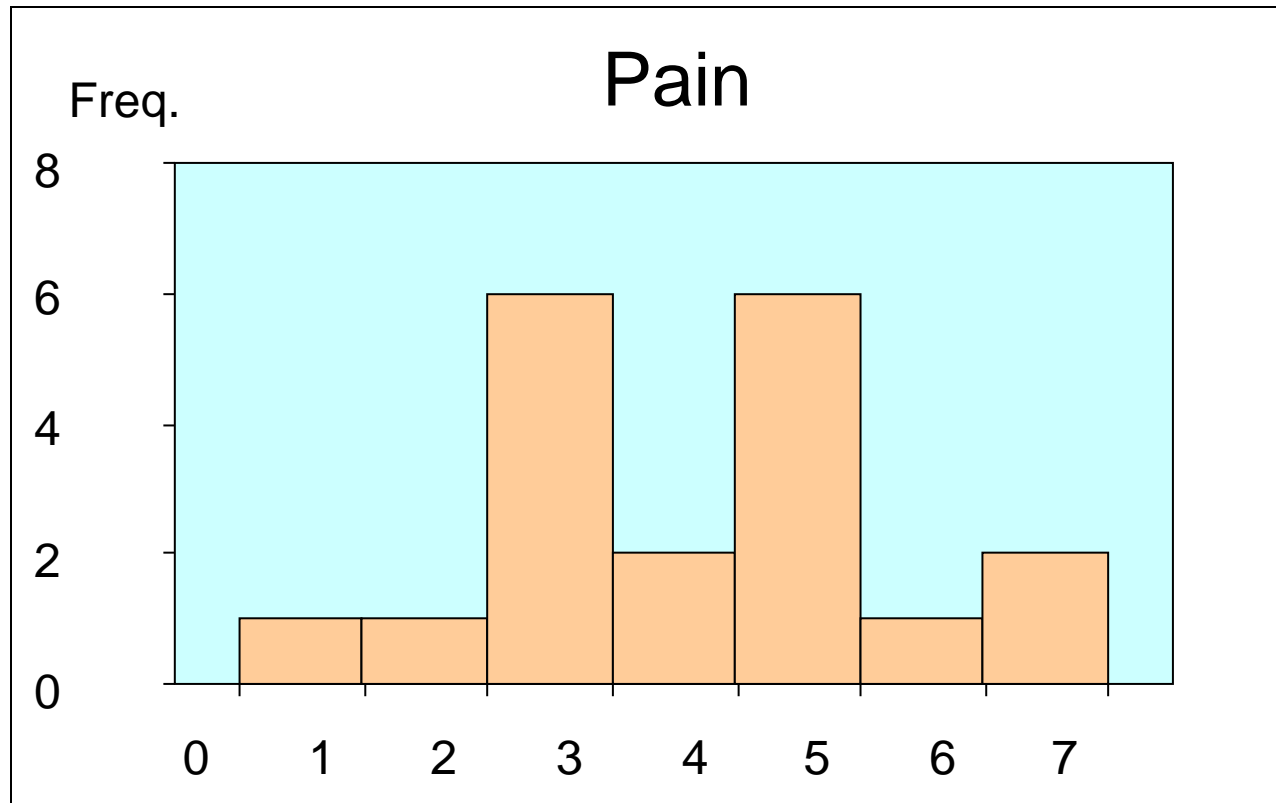
Breast	25
Colon	7
Lymphoma	2
Prostate	1
Lung	1
Other	3

# Main Issues for Sydney Patients

- Anxiety
- Depression
- Neuropathy
- Pain
- Bowels
- Muscular Tension



# Findings so far

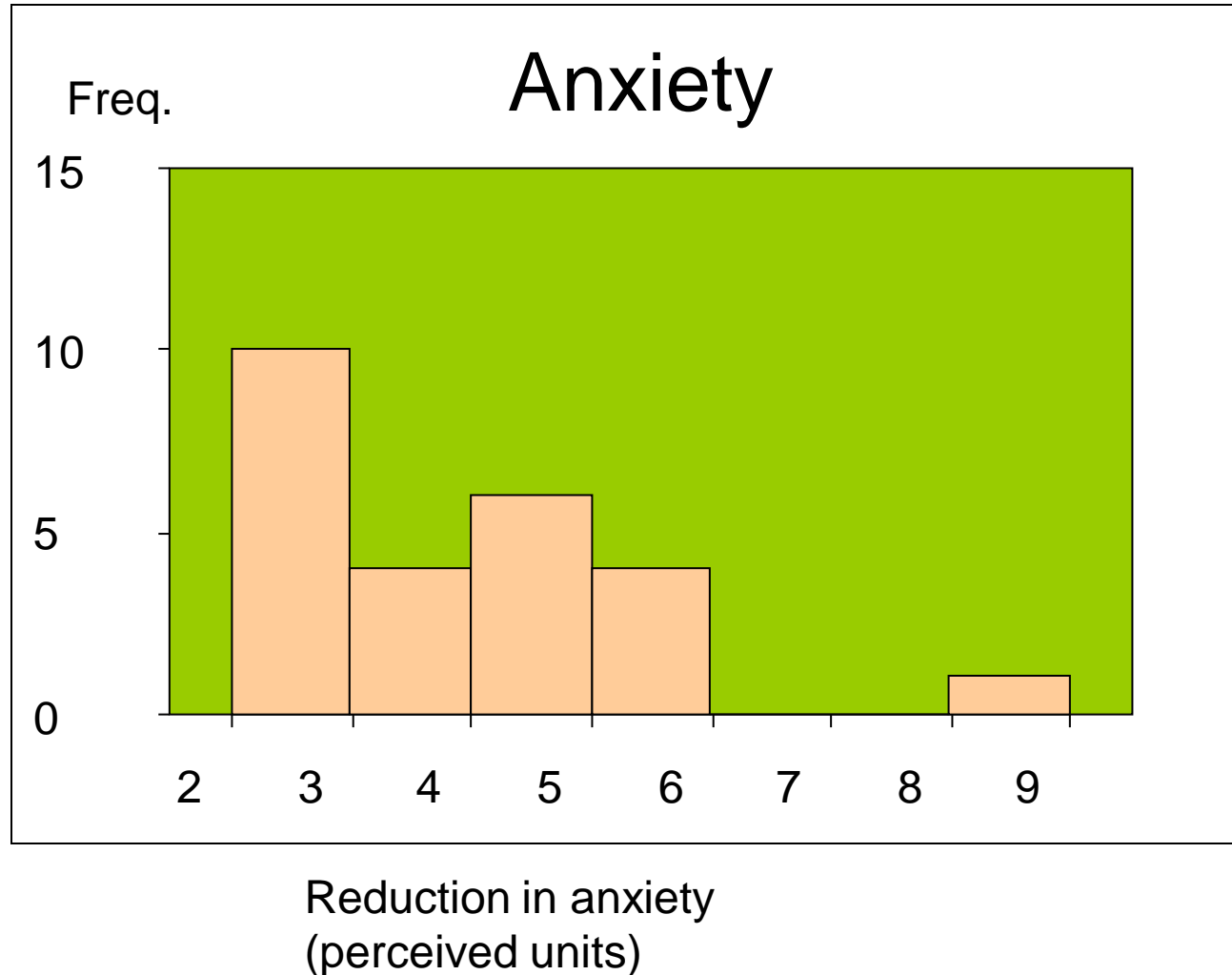


Reduction in Pain (perceived units)

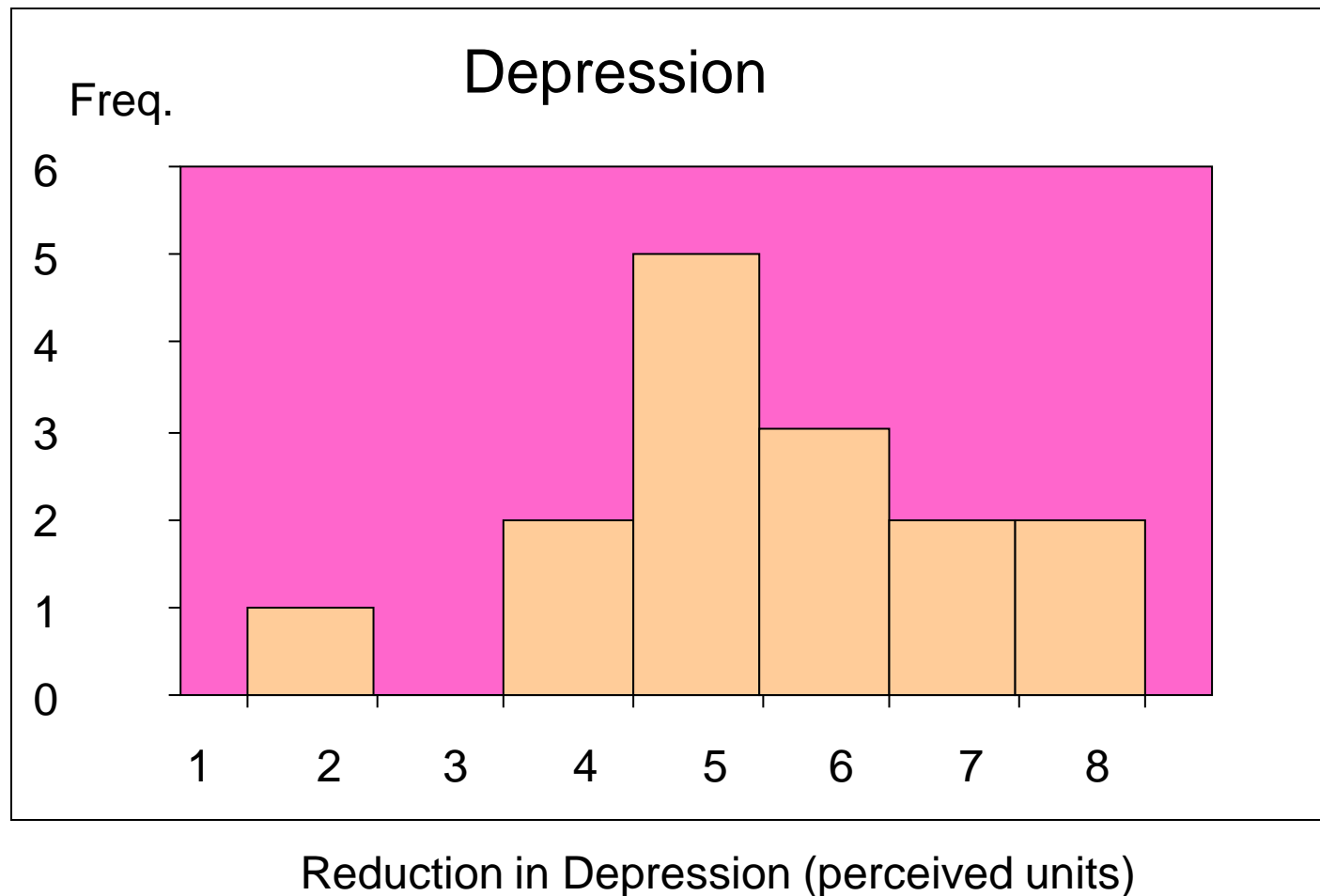
Size: 19

Mean: 3.45

Std Dev: 1.6



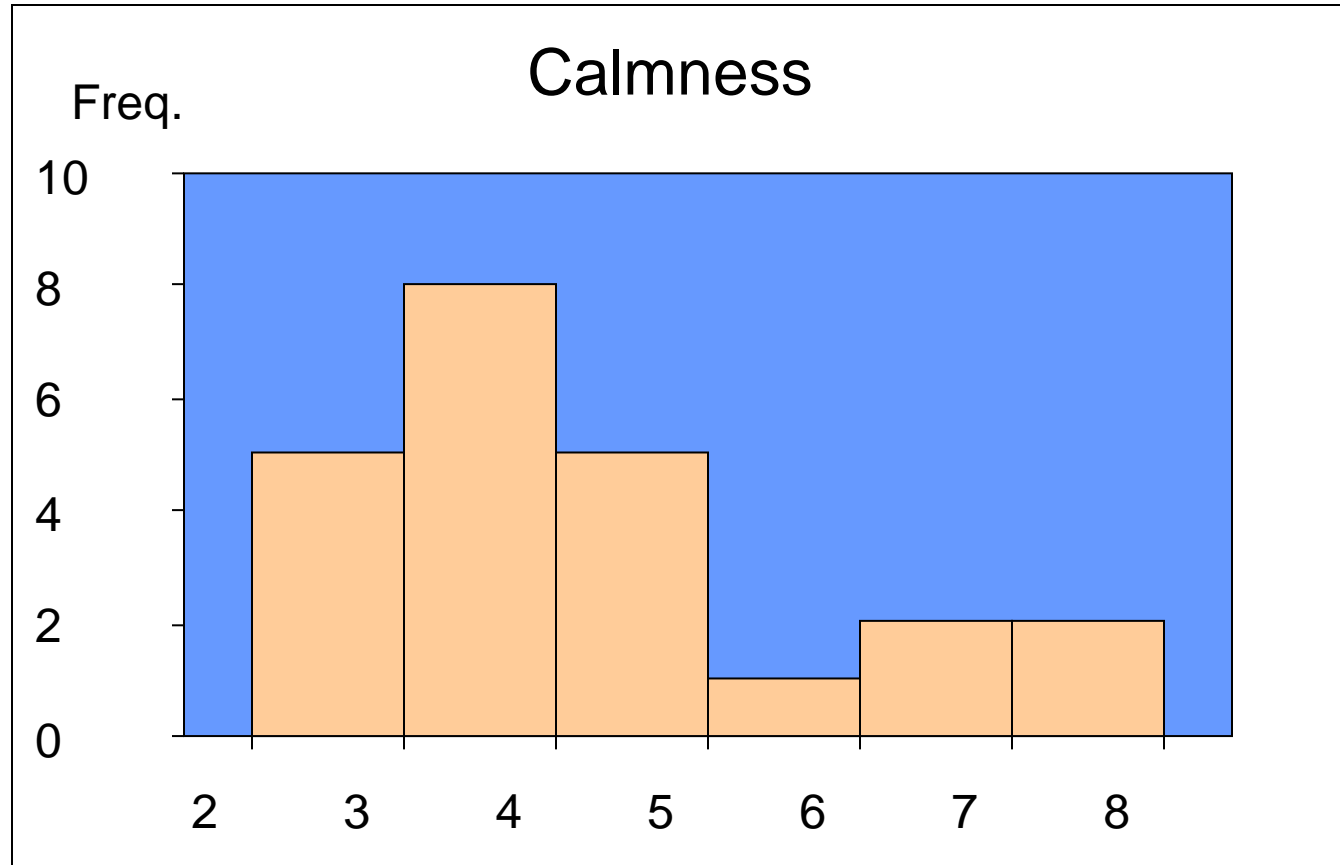
Size: 25  
Mean: 3.36  
Std Dev: 1.5



Size: 15

Mean:4.5

Std Dev 1.6

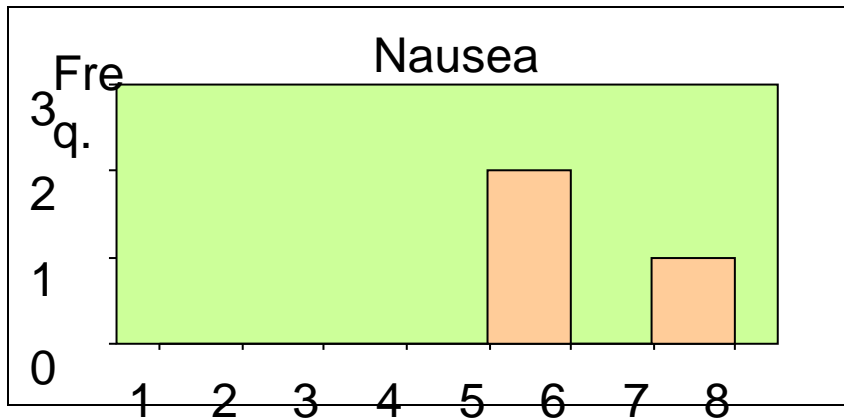


Size:23

Mean:3.7

Std Dev:1.6

Increase in Calmness (perceived units)

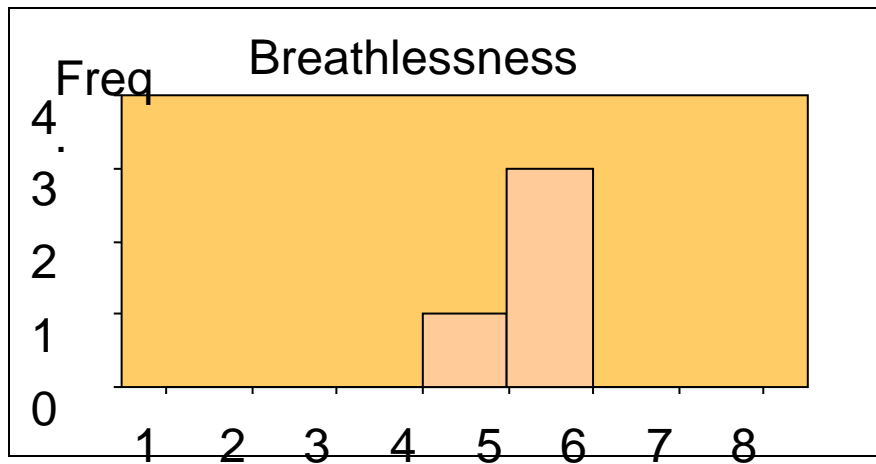


Size: 3

Mean: 3.5

Std Dev: 1.7

Reduction in Nausea (perceived units)



Size: 4

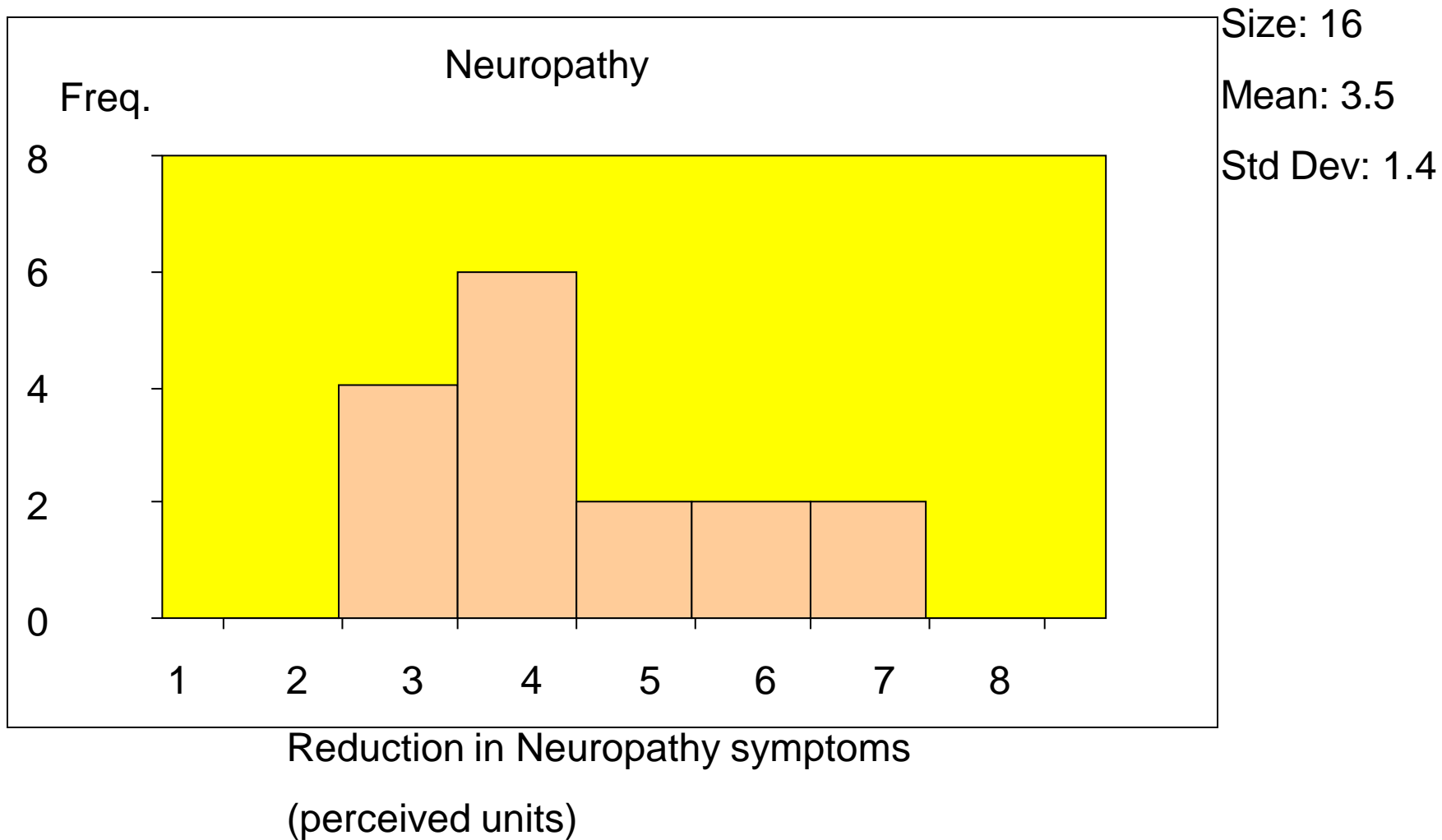
Mean: 4.75

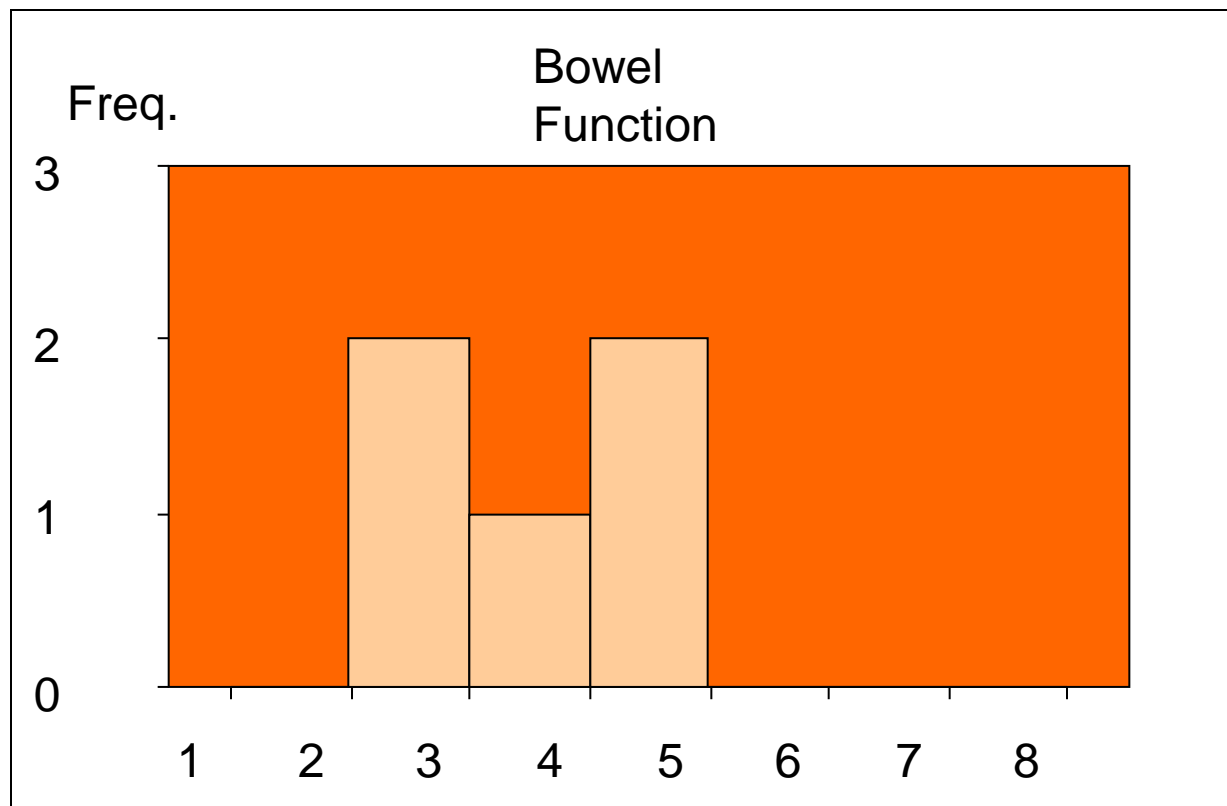
Std Dev: 0.5

Improvement in Breathing

NOTE: Small sample size & significant improvement for those with these symptoms







Improvement towards normal bowel function  
(perceived units)

Size: 5  
Mean: 3.0  
Std Dev: 1.0

# Sydney- Findings

## Anecdotal Findings

- Very relaxing – reduces muscular tension
- Improves feeling of well-being & calmness
- Builds spirit and energy
- Helps with constipation
- Helps with neuropathy of hands and feet.
- Very supportive emotionally

# Limitations of the Sydney Study

- Not all therapists have the same enthusiasm for collecting data and some records are incomplete
- The policy of the centre is non exclusive, that is  
Reflexology is provided to: —
  - carers and health care workers
  - survivors
  - patients in all stages of cancer illness
  - patients undergoing all types of treatments
  - patients with all kinds of cancers
- The program is so popular it is difficult for patients to get appointments thereby making time between visits longer than desirable
- Patients may become too ill to participate

# PERTH- Findings (2006)

- A pilot study was conducted in 2002-2004
- Data from this study has been compiled and reported on in 2006
- A grant of \$60,000 has been allocated for a collaborative study between the Solaris Care Centre at Sir Charles Gairdner hospital and Edith Cowan University. 2007
- The pilot study showed that touch based complementary therapies can show marked improvements in Quality of Life
- The centre presently treats 80 - 100 patients per week with 21 therapies offered. Reflexology, massage and aromatherapy are the most popular.
- 8 reflexology volunteers at the centre.



# Findings Perth

- Over a course of six Complementary medical therapy sessions, individual Symptom Distress Scores improved for:
  - Pain
  - Fatigue
  - Nausea
  - Appetite
  - Sleep
  - Breathing
  - Bowels
- Fatigue showed the most improvement.

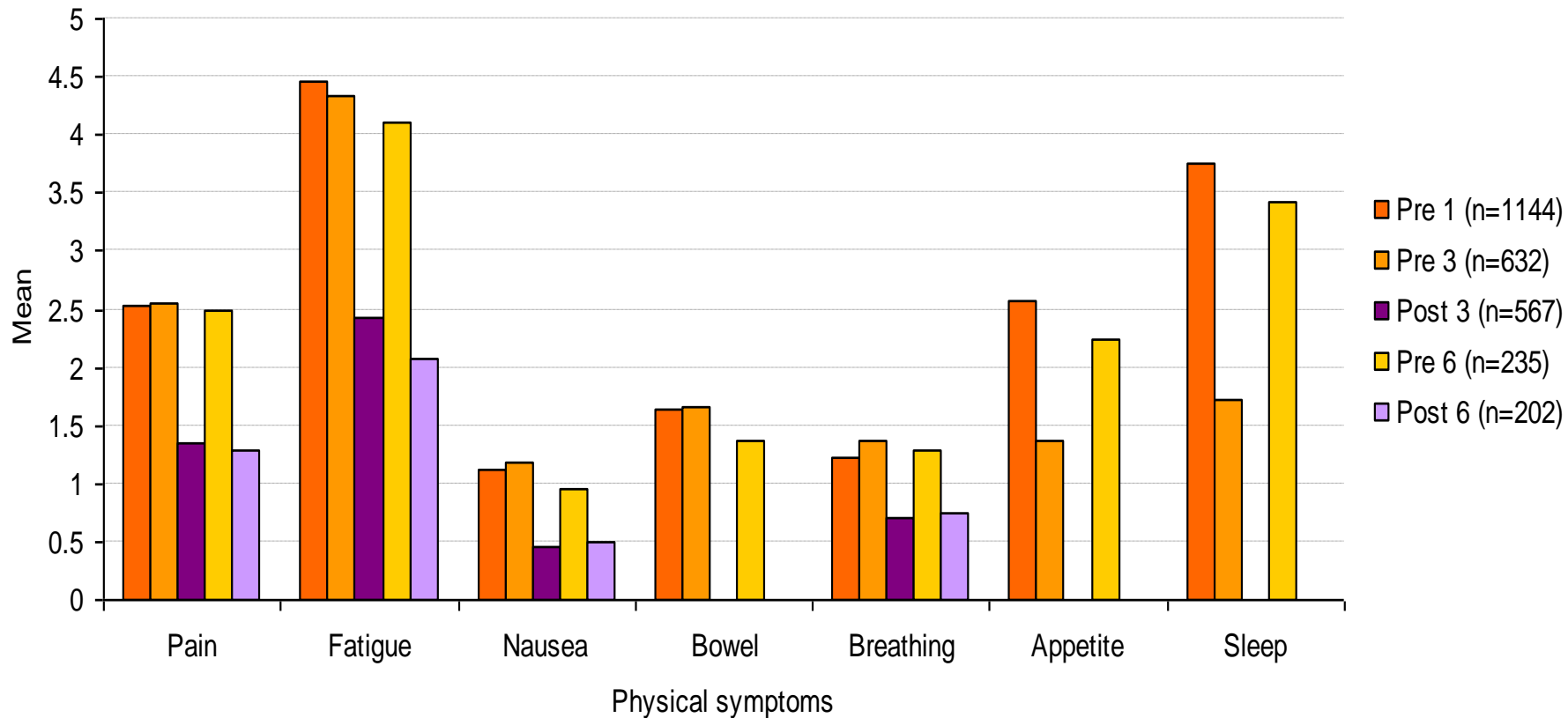
# Findings Perth

- The QoL Scales comprised 7 items e.g. empowerment, depression, anxiety, anger frustration, etc
- Data for carers has also been collected and a beneficial effect is seen.

# Perth

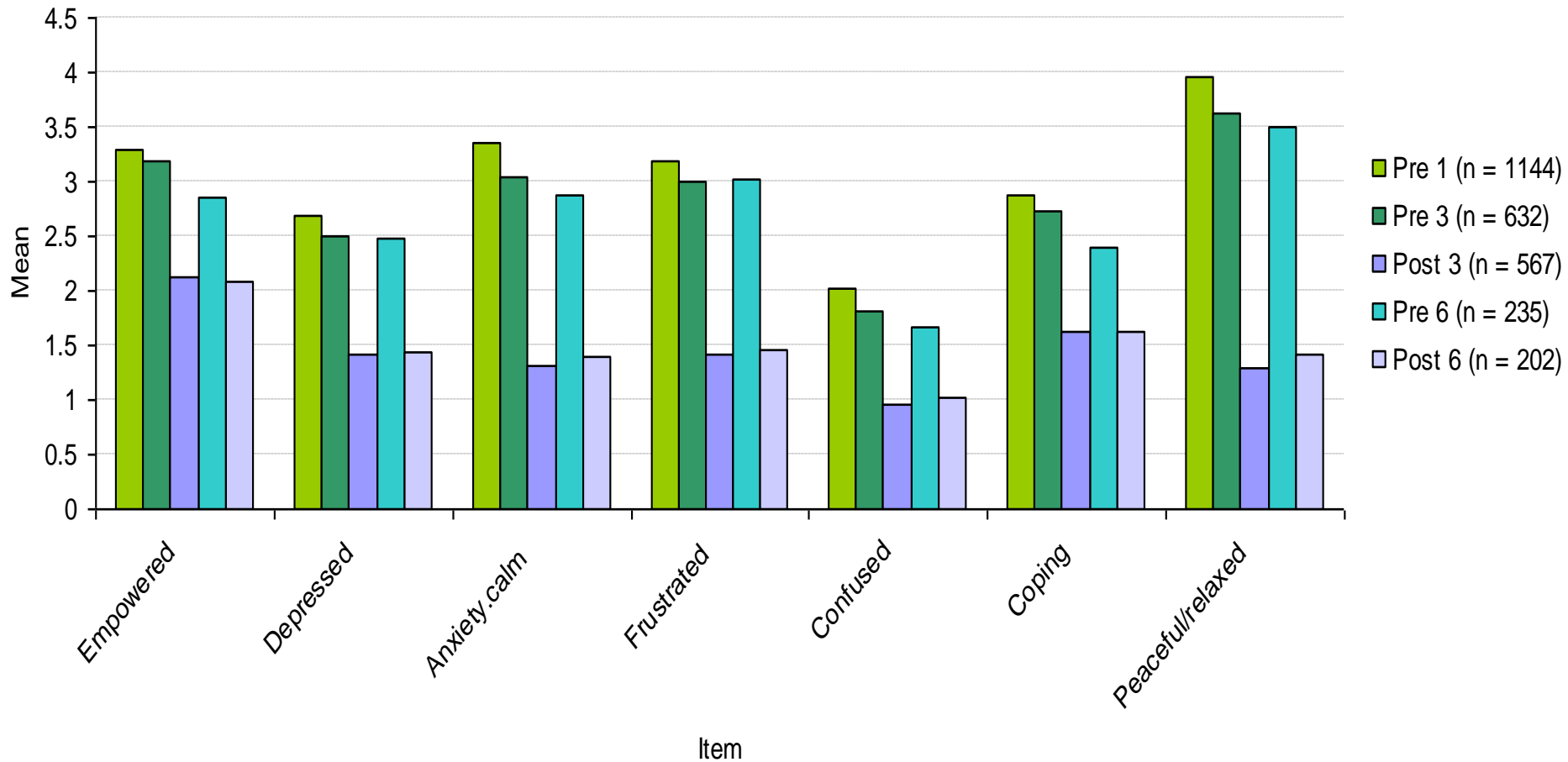
## Symptom mean for each Assessment

*Note:* There is no data for the symptoms bowel, appetite, and sleeping at post assessments 3 and 6



# PERTH

**Quality of life mean for each assessment.**



# PERTH

- Cronbach's alpha coefficients were used for the Symptom Distress Scale and the Quality of Life Scale for each of the five assessment times.
- The coefficients proved the SDS and QOL scales could be considered reliable
- **CONCLUSION:**
- The Cancer Journey can be improved for cancer patients and carers accessing supervised Complementary Medical therapies in a teaching hospital setting.
- **THE FUTURE:**
- **(1) Expansion of facilities to allow greater access for Western Australians to supervised complementary therapies;**
- **(2) “drill-down” projects looking at assessing specific CAM therapies in appropriate clinical settings; and**
- **(3) basic scientific studies to assess the impact of CAM therapies upon immune function in patients and carers**

# Conclusion

- All projects show preliminary evidence to support the premise that reflexology as a complimentary therapy has benefit to patients with cancer.
- The Perth study has found that quality of life is improved through use of complementary therapies as an adjunct in the treatment of cancer
- There is much more specific research to be done in the areas of: terminal illness and types of cancers
- There is encouragement for the future with grants providing money to do further research
- All projects have been fraught with administrative difficulties



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