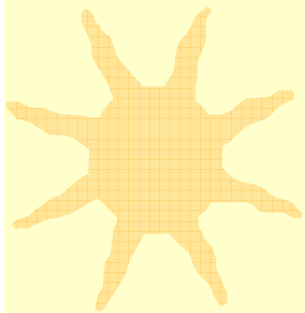
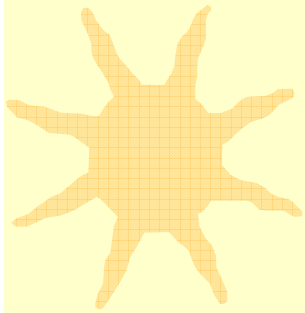


# *Other Symptoms*

---



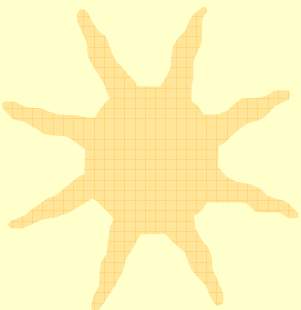
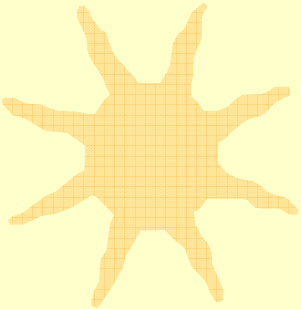
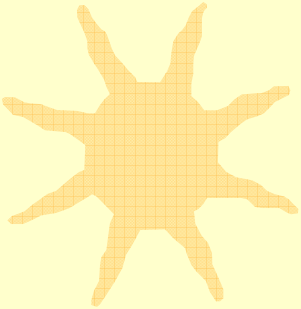
Nausea, Vomiting, Constipation

Tracey Legary, RN/BN  
Nursing Coordinator  
WRHA Palliative Care Subprogram



# *Nausea & Vomiting*

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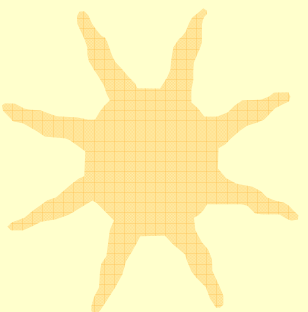
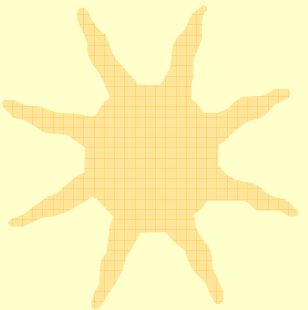
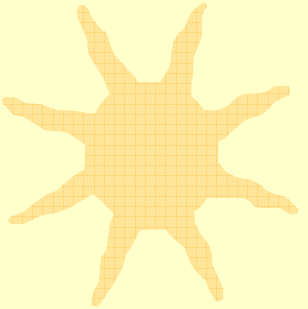


- ★ These terms are often used interchangeably-this leads to confusion during the assessment, measurement, treatment, and follow up teaching
- ★ NAUSEA-is a subjective symptom involving an unpleasant sensation experienced in the back of the throat and the epigastrium, which may or may not lead to vomiting
- ★ “butterflies”, “queasy”, “motion sick”



## *Nausea & Vomiting in people with cancer*

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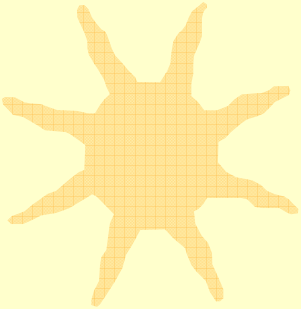


- ★ These are common symptoms experienced by cancer patients, secondary to the underlying malignancy as well as side effects from medications used to treat the cancer or other symptoms
- ★ These symptoms can be quite distressing and if untreated interfere with and impair QOL, ADL, and overall coping



# *Assessment KEY POINTS*

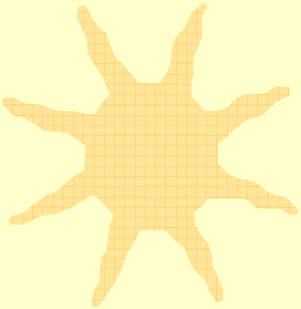
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Intensity

Onset

Duration

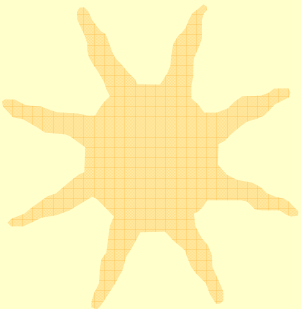


Frequency

Impact

Aggravation

Alleviation

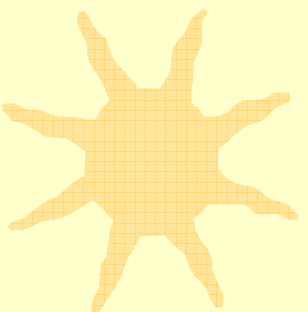
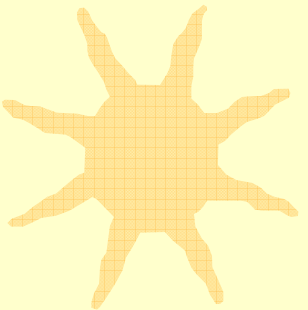
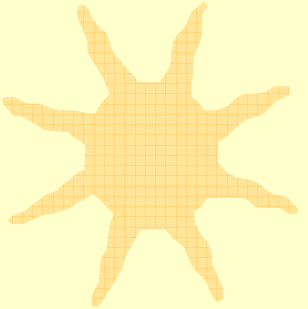


Emesis



## *Assessment*

---

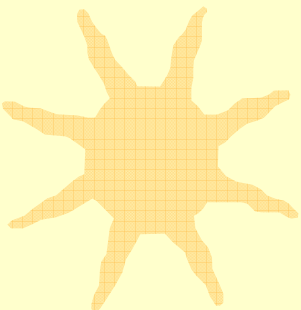
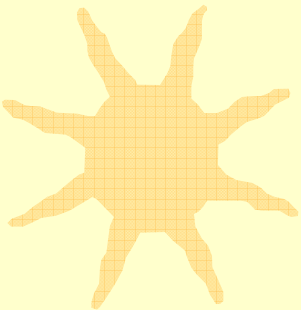
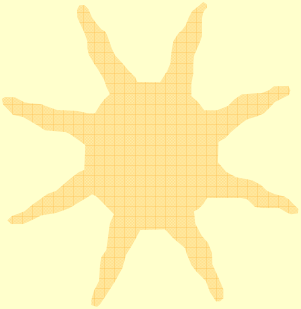


- ★ Many assessment tools are available=  
PQRST, VAS(Visual Analogue Scale),  
ESAS(expanding with PQRST, VAS)



## *Assessment*

---

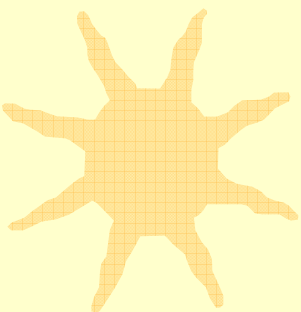
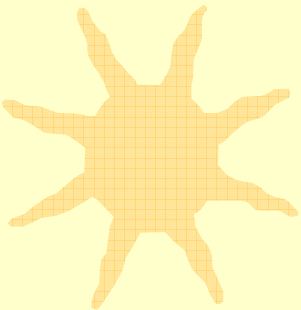
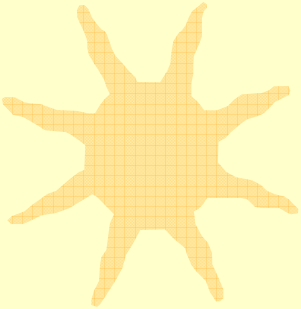


- ★ Intensity-ESAS, PQRST, VAS
- ★ Onset-is there a specific time of the day the nausea occurs-in the morning or afternoon or evening (Brain Tumor(undergoing XRT)-often a.m. onset-resolving through the day-ICP)
- ★ Duration-how long does it last



## *Assessment*

---

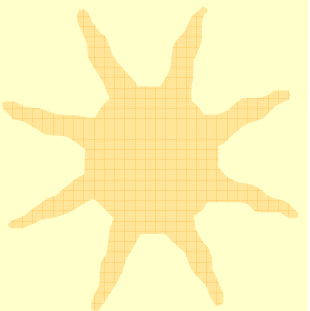
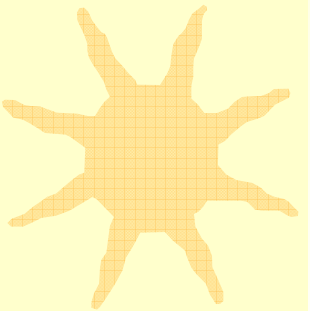
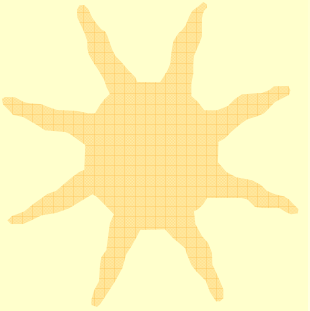


- ★ Frequency-does this come and go, or does it last all day,
- ★ Impact-how does this effect QOL, ADL
- ★ Aggravating Factors-what makes it worse-movement, opioids, food odor, lighting
- ★ Alleviating Factor-does lying down make it better, cold foods, clear fluids, include any medication tried



## *Assessment*

---

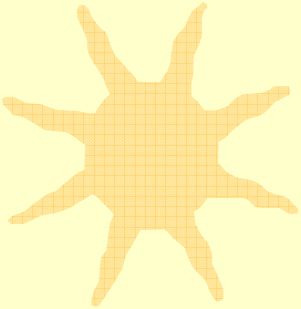


- ★ Emesis-appearance-undigested food, fecal odor, bile

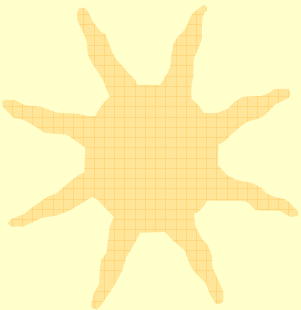


## *Assessment-Other Possible Triggers*

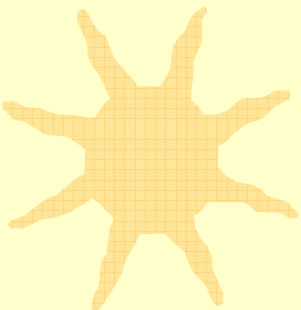
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★ Medications/Drugs-Antibiotics, SSRI's  
(e.g. Prozac, Luvox, Paxil Zoloft, Celexa)



★ Opioids (consider possible opioid rotation)

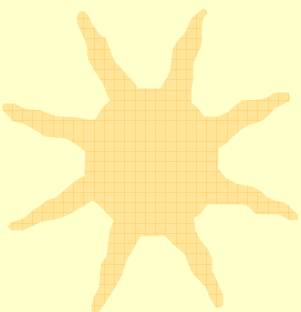
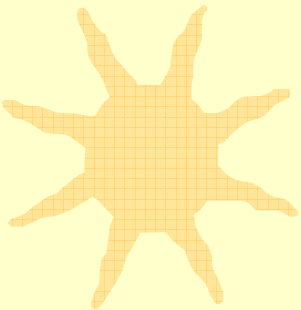
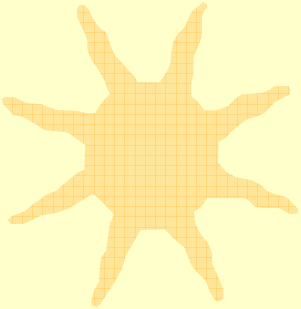


★ We should question if all of the medications are necessary or can some be discontinued or can some be replaced/substituted



# *Physical Assessment*

---

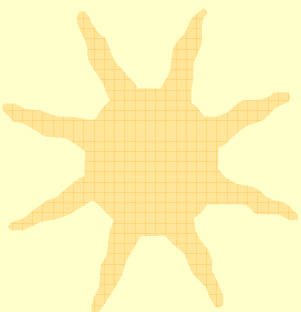
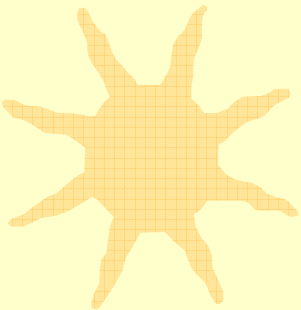
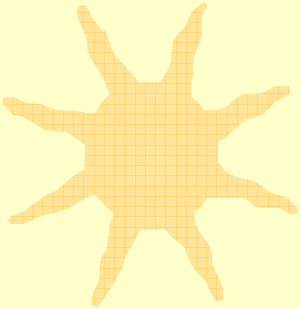


- ★ Assess BOWEL SOUNDS (4 quadrants-listen to determine pitch)
- ★ Expected bowel sounds would be high pitched, gurling, cascading, occurring irregularly
- ★ HYPERACTIVE SOUNDS-*borborygmus*
- ★ ABSENT SOUNDS-*paralytic ileus*
- ★ *Diagnostics-Flat Plate XRAY, CT, Lab work (Calcium level)*

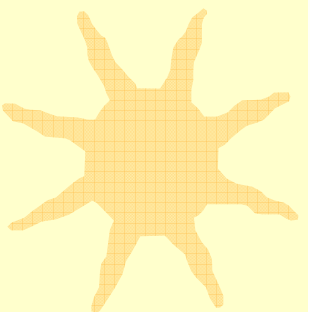
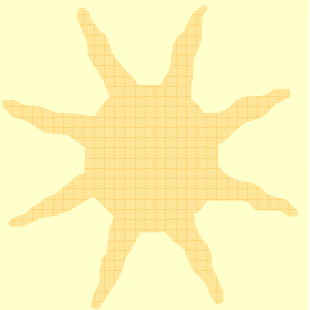
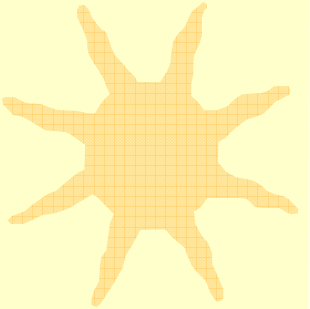


## *Assessment (continued)*

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- ★ Determine bowel elimination routine-this would include last BM, frequency, volume
- ★ Is the abdomen soft, firm, distended?
- ★ What medications have been used on the past for nausea-what medications are currently being used for the nausea

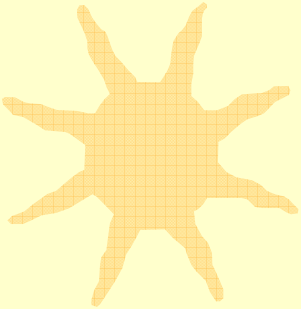


- 
- ★ Vagal
  - ★ Vestibular
  - ★ Mid-Brain
  - ★ Chemoreceptor Trigger Zone(CTZ)
  - ★ Integrated Vomiting Centre

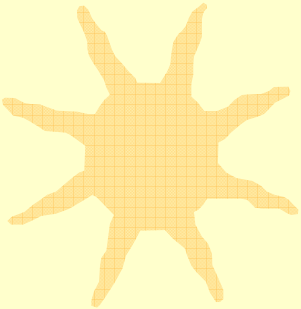


# *VAGAL EFFECTS*

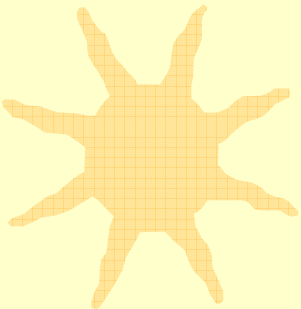
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- ★ Decreased gastric motility
- ★ Constipation or obstipation, bowel obstruction.
- ★ Mechanical effects of gastrointestinal pathology



## TREATMENT

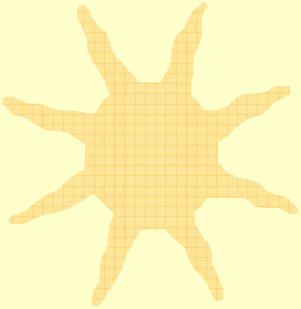


- ★ 1) Maxeran or Domperidone- To increase motility (Prokinetic action)
- ★ 2) Buscopan- To decrease smooth muscle spasm, and decreases secretions
- ★ 3) Dexamethasone- to decrease mechanical obstruction

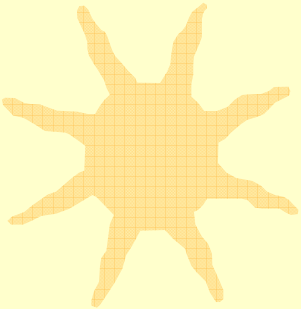


# *VESTIBULAR EFFECTS*

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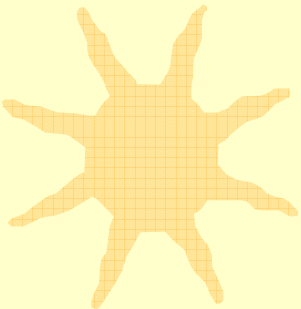


- ★ Vestibular disturbances- motion sickness, dizziness
- ★ Secondary to- Brain tumor or medications



## TREATMENT

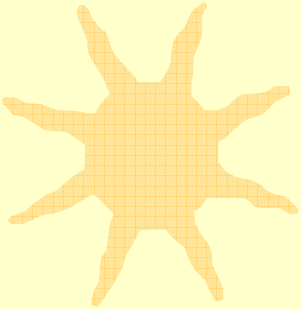
- ★ Gravol- decreases motion sickness
- ★ Nozinan- action unclear
- ★ Scopolamine- decreases motion related nausea



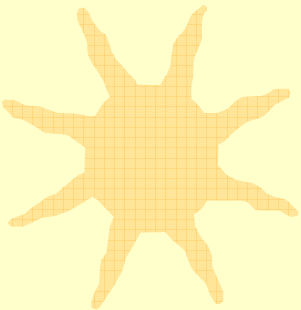


# *MIDBRAIN EFFECTS*

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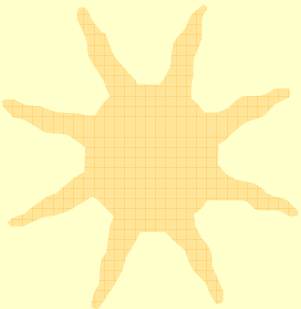


- ★ Tumor induced intracranial pressure (ICP)
- ★ Anxiety and stress related



## TREATMENT

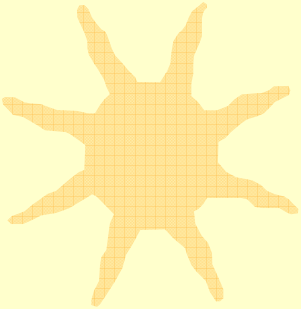
- ★ Dexamethasone- to decrease ICP
- ★ Ativan or valium- to decrease anxiety and stress
- ★ Nabilone (THC) medical marijuana- to decrease stress



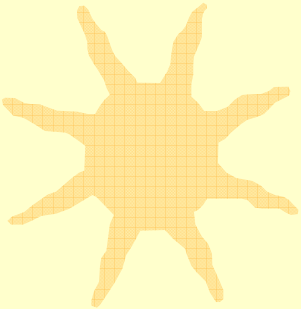


# *CHEMORECEPTOR TRIGGER ZONE*

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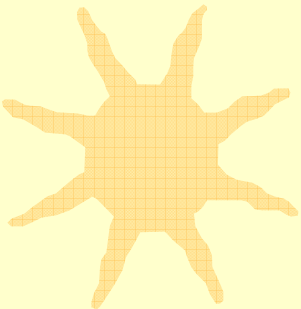


- ★ Medication toxicity/side effects
- ★ Metabolic abnormalities-hypercalcemia, electrolyte imbalances, liver and renal failure, and dehydration



## TREATMENT

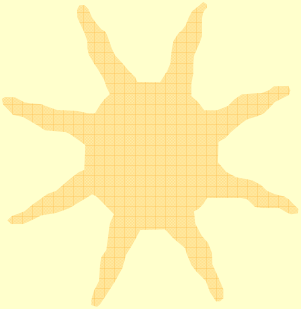
- ★ Stemetil, or Haldol, or CPZ, or Nozinan-  
Dopamine antagonist action
- ★ Maxeran or Domperidone-To increase motility  
(Prokinetic action)



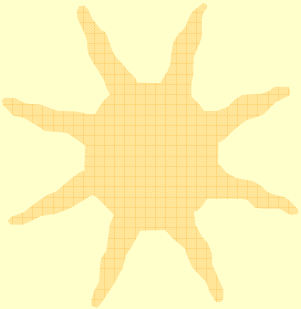


# *INTEGRATED VOMITING CENTRE*

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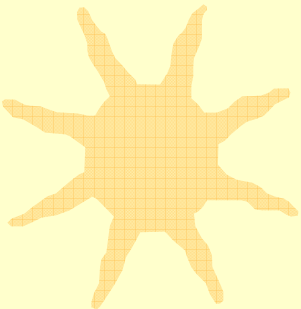


- ★ Side effects from radiation therapy and chemotherapy
- ★ Any combination of causes listed previously



## TREATMENT

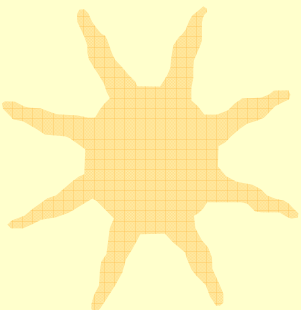
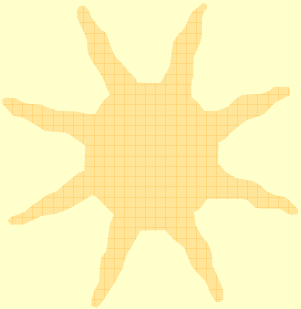
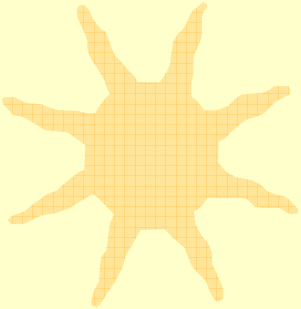
- ★ Combination of medications targeting different mechanisms of action.
- ★ Most literature supports starting with Maxeran **(except in complete bowel obstruction)**, followed by the addition of Dexamethasone.





# *Non-Pharmaceutical Interventions*

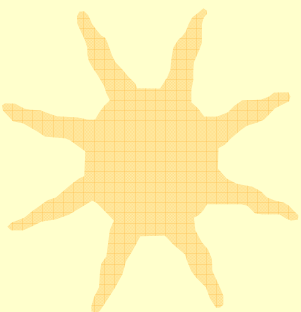
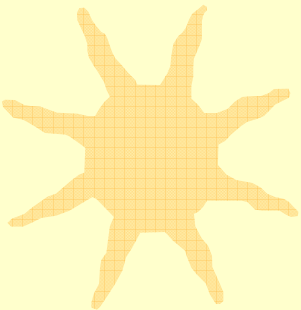
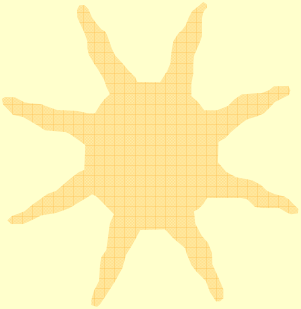
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- ★ Diet-clear fluids, smaller amounts
- ★ Food Odors-avoid triggers
- ★ Cold foods (e.g.-sandwiches, jello, etc.)
- ★ Greasy foods
- ★ Avoid dehydration
- ★ Upright after eating to facilitate digestion
- ★ Environment
- ★ Complementary therapies (relaxation, imagery, accupressure, acupuncture)



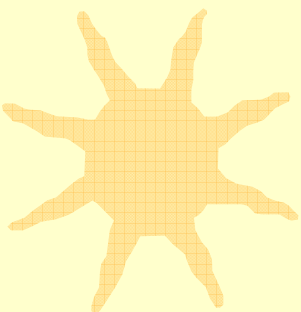
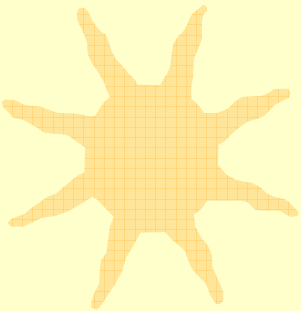
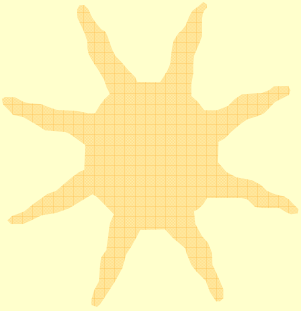
# *Constipation*



"WORST CASE OF CONSTIPATION I'VE EVER SEEN."



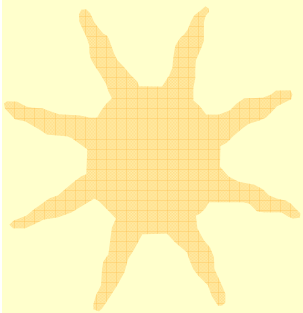
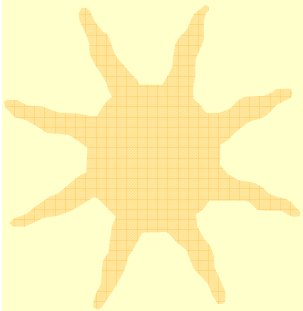
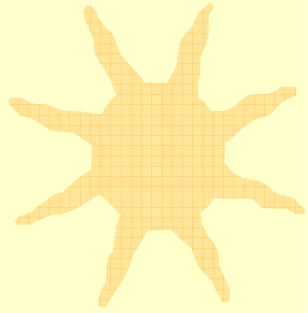
# Constipation



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WOW! THAT'S  
CLEARED MY  
CONSTIPATION





# *Constipation*

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*Constipation and the  
cancer patient*

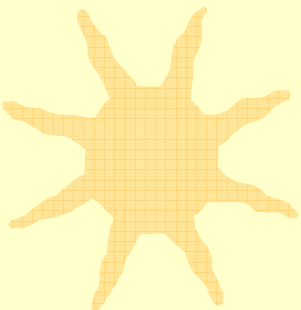
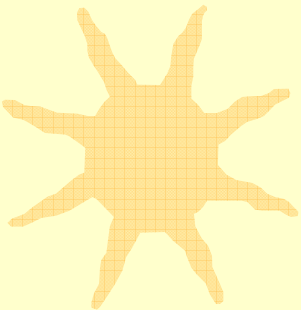
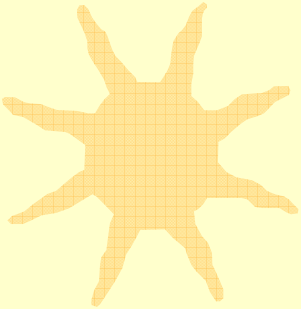


# *Constipation*

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## Definition

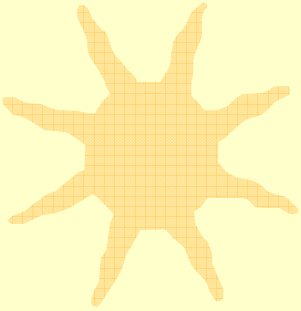
- ★ Physiology of GI tract
- ★ Etiology
- ★ Assessment
- ★ Treatment



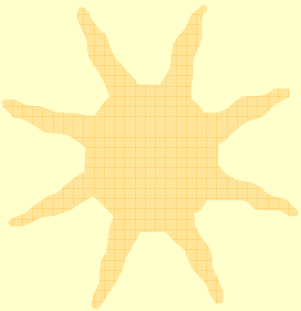
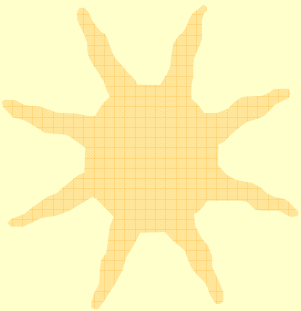


# *Constipation*

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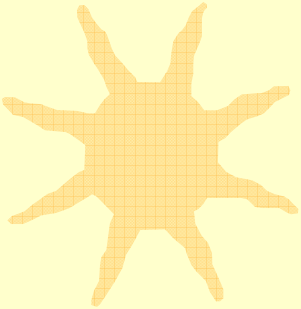
- ★ Assessment methods
- ★ Etiology
- ★ Concomitant disease
- ★ Pharmacologic treatment
- ★ Preventative strategies





# *Definition*

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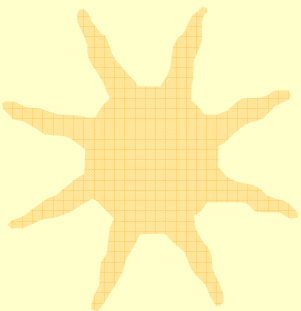
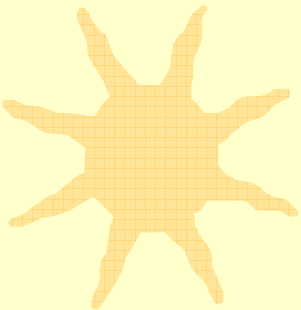


★ Passage of small, hard stools

★ Painful passage (straining)

★ Prolonged interval

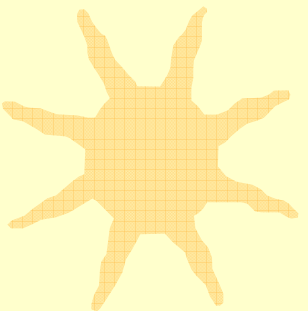
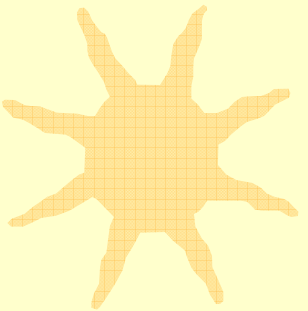
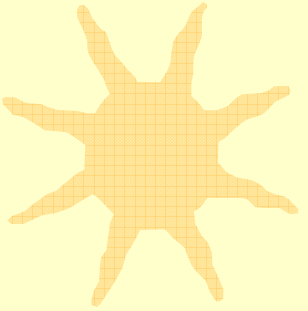
★ N range: 1 in 3d to 3 in 1d





# *Physiology*

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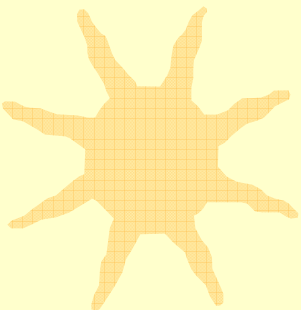
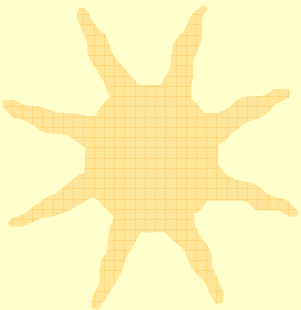
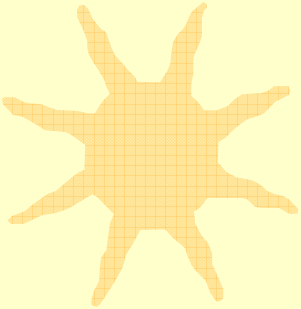


- ★ Coordinated effort:
  - ★ motility (peristalsis)
  - ★ intact ANS
  - ★ hormonal activity
- ★ mucosal transport
- ★ defecation reflex



# *Symptom Prevalence*

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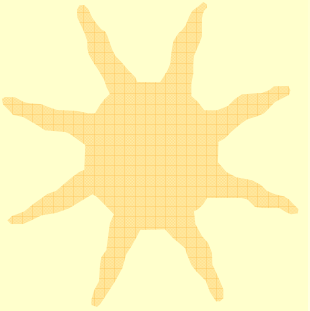


★ Pain	★ 80 - 90%
★ Fatigue/Asthenia	★ 75 - 90%
★ <b>Constipation</b>	★ <b>70%</b>
★ Dyspnea	★ 60%
★ Nausea	★ 50 - 60%
★ Vomiting	★ 30%
★ Delirium	★ 30 - 90%
★ Depression/suffering	★ 40 - 60%



# *Etiology*

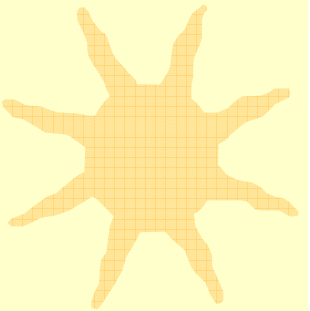
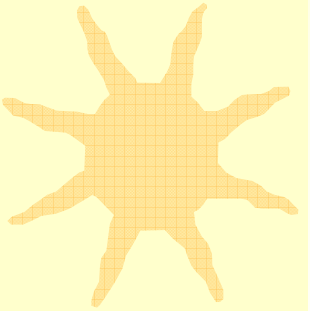
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★ Malignancy

★ Medications

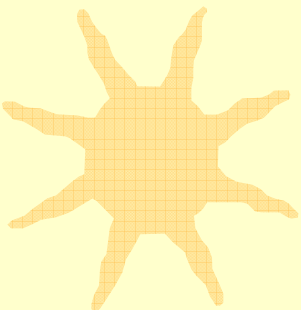
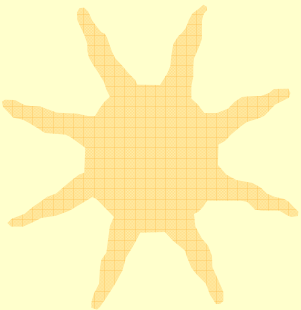
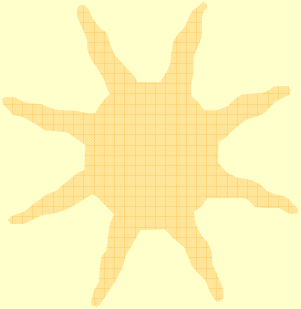
★ Concurrent Disease





# *Malignancy Effects*

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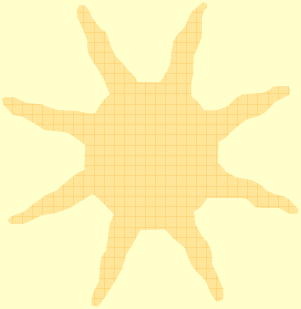
- ★ Direct

- ★ obstruction by tumor in wall
- ★ external compression by tumor
- ★ neural damage
  - ★ L/S spinal cord
  - ★ cauda equina/pelvic plexus
- ★ hypercalcemia



# *Malignancy Effects*

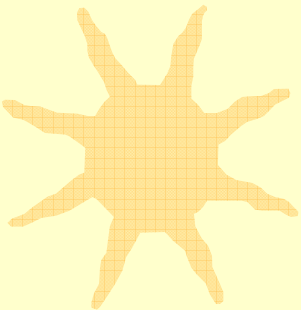
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★ Secondary effects

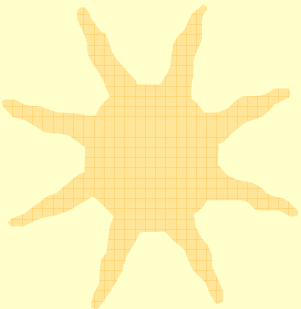
★ poor po intake

★ dehydration



★ weakness/inactivity

★ confusion



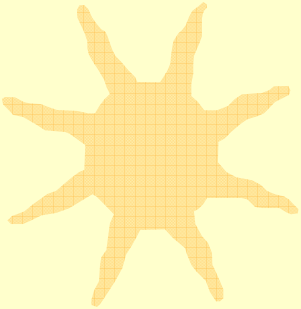
★ depression

★ unfamiliar toilet arrangements



# *Medications*

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★ Opioids

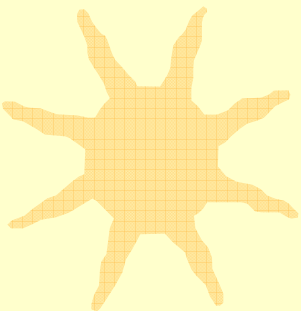
★ Anticholinergic activity

★ phenothiazines

★ tricyclic antidepressants

★ antiparkinsonian agents

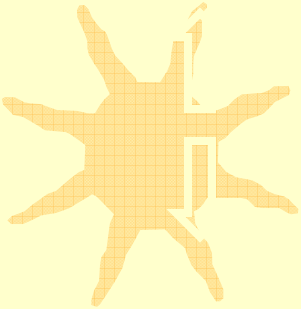
★ Antacids





# *Opioid effects*

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- ★ Ileocecal & anal sphincter tone

- ★ Peristaltic activity in SI & C

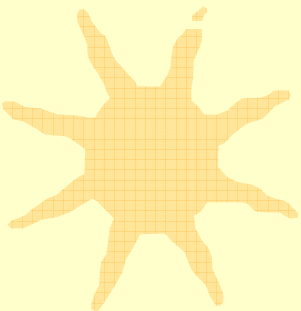
- ★ Impaired defecation reflex

- ★ sensitivity to distension

- ★ internal anal sphincter tone

- ★ 'lyte & water absorption in SI & C

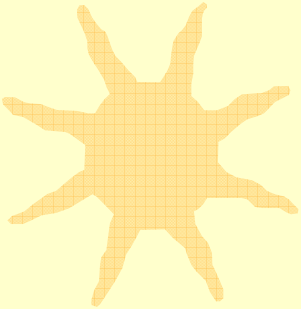
- ★





# *Medications*

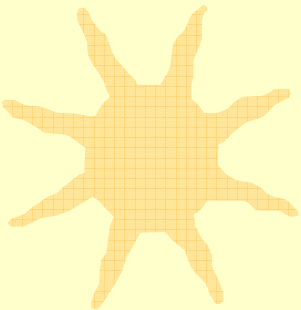
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★ Diuretics

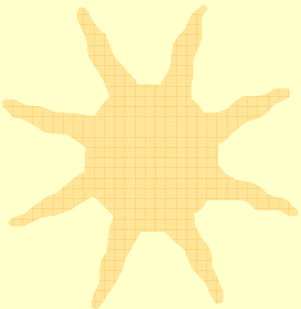
★ Anticonvulsant

★ Iron supplements



★ Antihypertensive Rx

★ 5HT<sub>3</sub> Antagonists

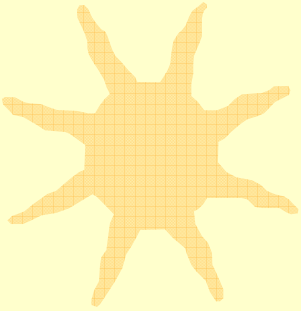


★ Vinca alkaloids



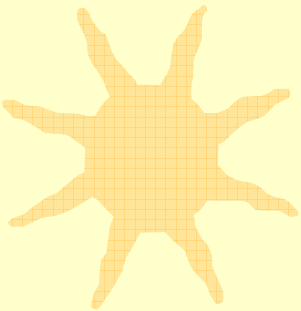
# *Concurrent Disease*

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★ Diabetes

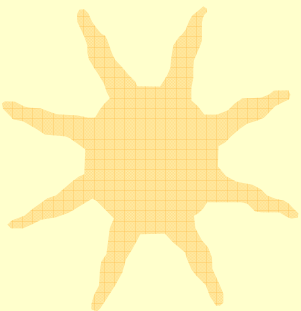
★ Hypothyroidism



★ Hypokalemia

★ Hernia

★ Anal fissure/stenosis

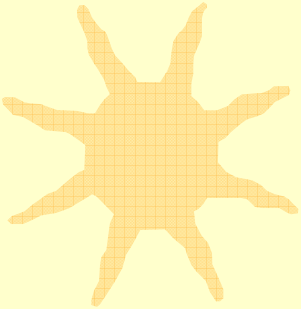


★ Hemorrhoids



# *Neuropathy & Constipation*

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★ Autonomic neuropathy

★ diabetes

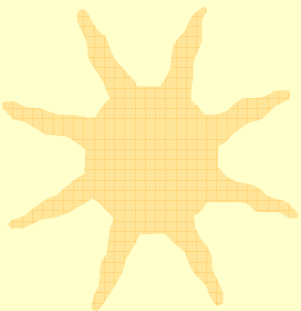
★ spinal cord disease

★ chemotherapy

★ Parkinson's disease

★ ALS/MS

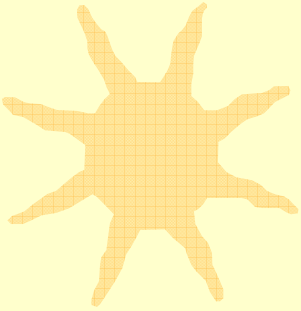
★ Dementia





# *Complications*

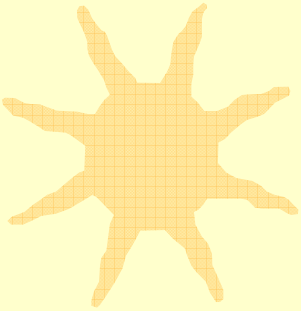
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★ Hemorrhoids

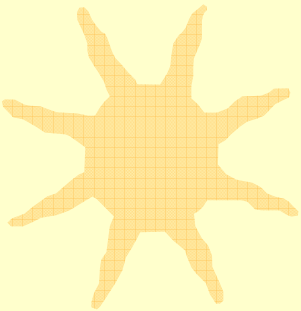
★ Rectal prolapse

★ Fecal impaction



★ Obstruction

★ Perforation



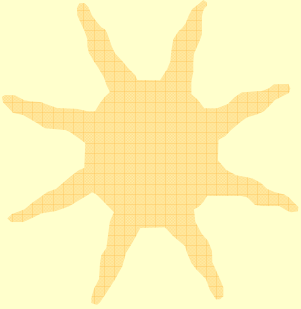
★ Nausea/vomiting

★ Urinary retention



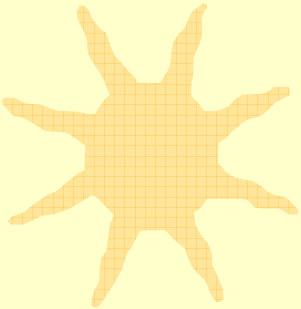
# *Assessment*

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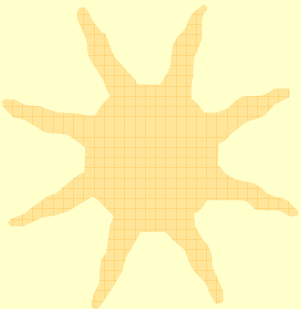
★ Hx/PE

★ Digital rectal exam



★ Abd X-ray

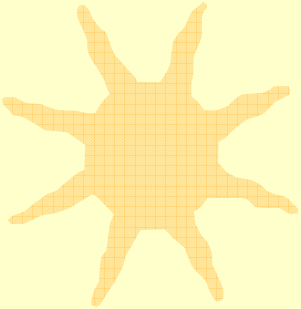
★ Blood work (Ca, K, TSH)





# *History*

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★ Last BM? BM freq? Previous freq?

★ Stool characteristics?

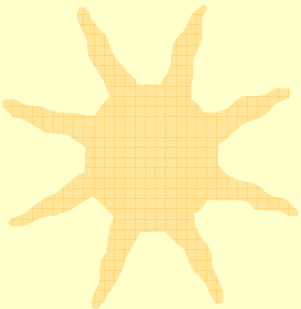
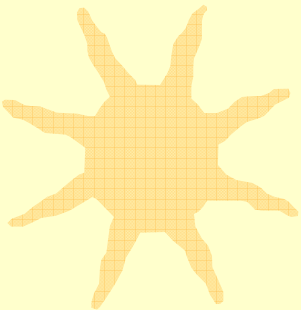
★ Defecation painful?

★ Urge present but no stool?

★ No urge to defecate?

★ Blood with stool?

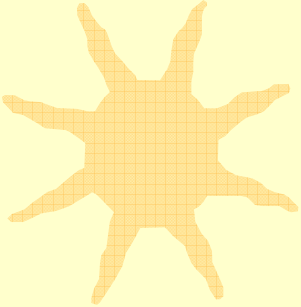
★ Nausea/vomiting?





# *Physical Exam*

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★ Physical appearance

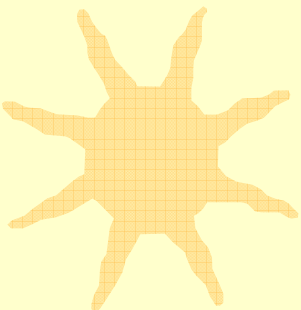
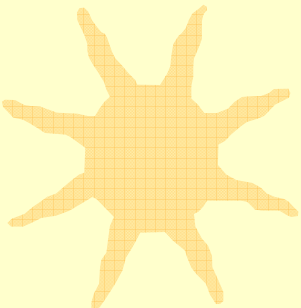
★ Abdomen:

★ masses, distention

★ bowel sounds

★ DRE

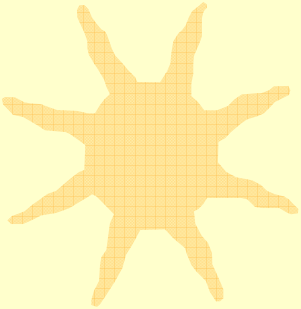
★ Pelvic exam





# *Constipation Score*

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★ Flat plate of abdomen

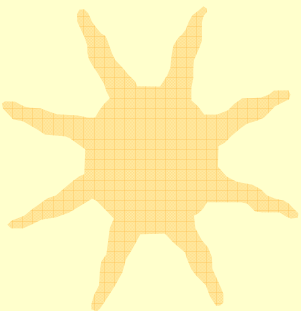
★ 4 quadrants

★ ascending, transverse

★ descending, rectosigmoid

★ 0=none, 1=<50%, 2=>50%, 3=100%

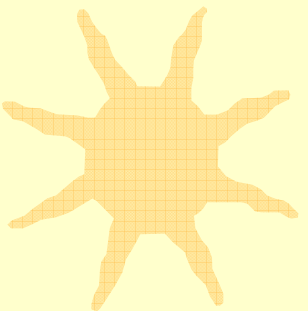
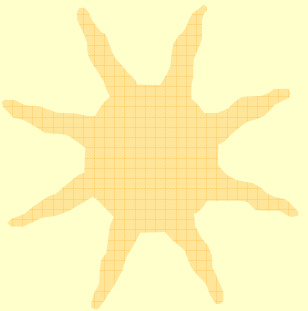
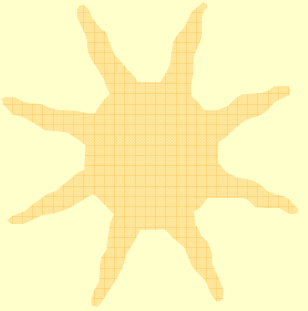
★ CS>7/12 requires treatment





# *Treatment*

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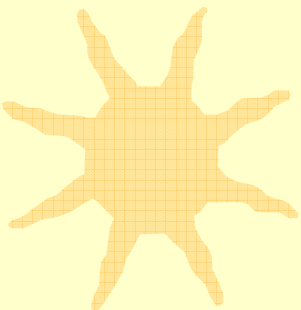
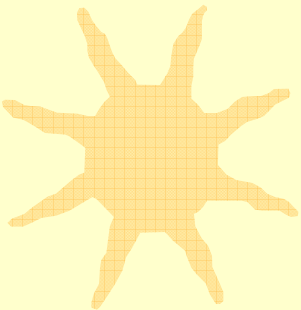
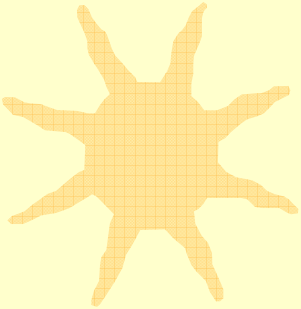


- ★ Prophylaxis
- ★ good symptom control
- ★ activity
- ★ adequate hydration
- ★ recognize drug effect
- ★ create a favorable environment



# *Treatment: Laxatives*

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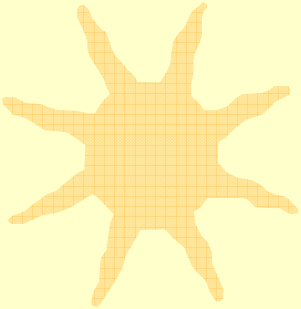


- ★ 80% pts need laxatives
- ★ Little research to guide choice
- ★ Softener and stimulant best
- ★ May require oral/rectal routes
- ★ Enemas useful in impaction



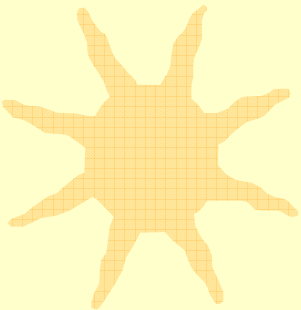
# *Laxatives*

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★ Bulk forming agents: psyllium

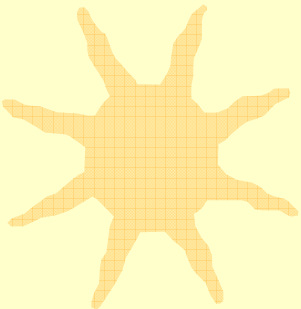
★ Surfactants: docusate



★ Contact cathartics: senna, bisacodyl

★ Osmotic laxatives: lactulose

★ Saline osmotics: MgOH, Phosphasoda

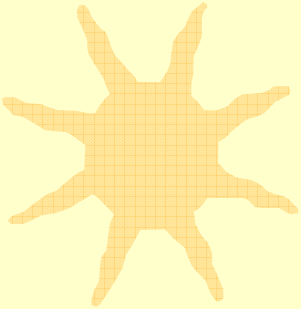


★ Enemas: oil, saline, soap suds, Fleet

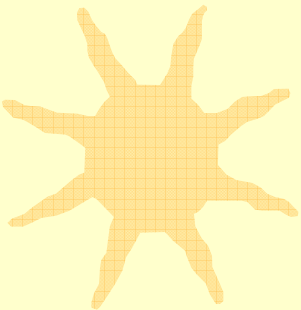


# *Other Approaches*

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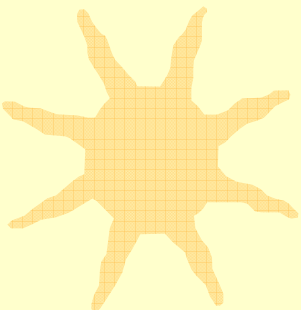
★ Prokinetic agents: cisapride, domperidone, metoclopramide



★ Antibiotics: erythromycin

★ Opioid antagonist: naloxone

★ Cholinergic: pilocarpine

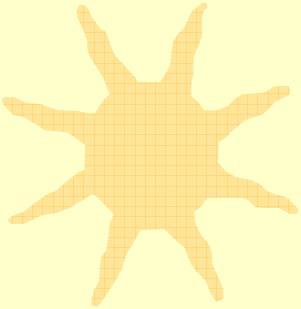


★ Herbal preparations: mulberry, rhubarb, licorice



# *Conclusions*

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★ Constipation common problem

★ Many causes

★ Prevention important

★ Assessment key

★ Opioid Rx+laxative Rx

★ Treat aggressively

