

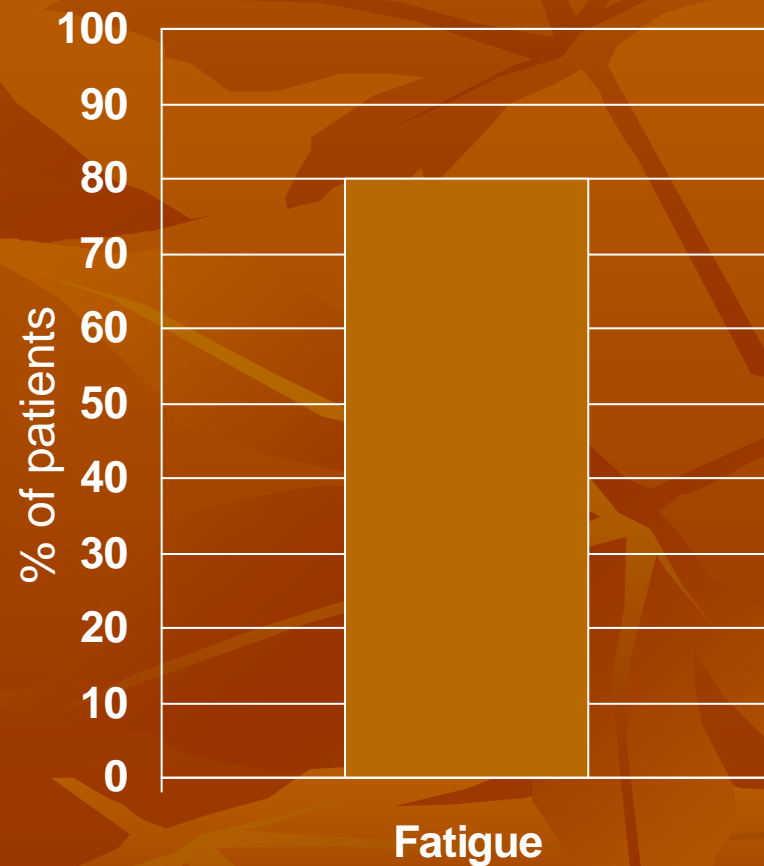
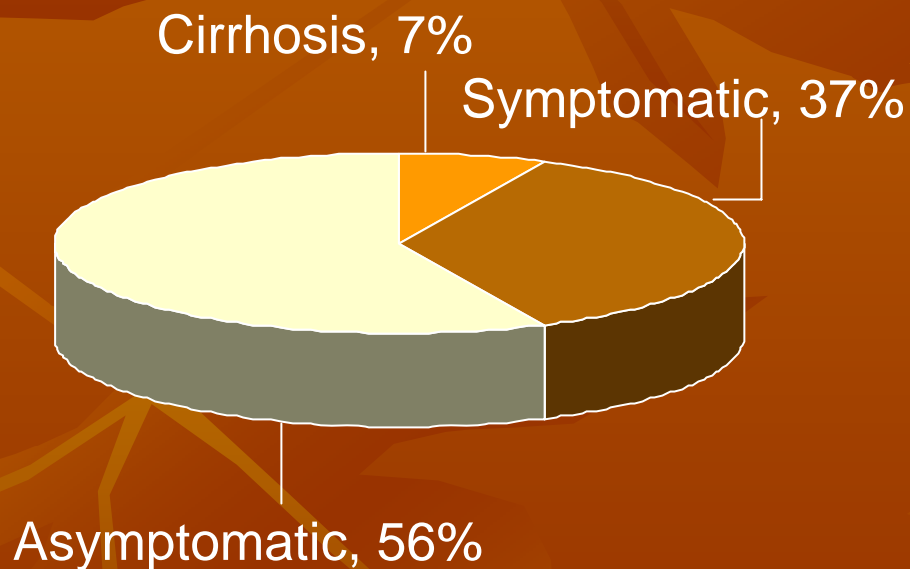
# **Patient Care Alternatives: A Holistic Approach**

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# Impact of HCV Infection in the US



# Symptoms, or lack of, in chronic Hepatitis C



# Common Symptoms of Patients with Hepatitis C in the absence of cirrhosis

- Fatigue
- Impaired thinking
- Low grade fevers
- Abdominal pain
- Appetite disturbances
- Digestive disturbances
- Joint aches
- Muscle aches
- Depression
- Anxiety
- Many others

# Current Treatment Recommendations

- Combination therapy of pegylated interferon plus ribavirin is the standard of care for treating eligible hepatitis C patients
- Pegylated interferon (taken by injection) helps fight the virus in two ways:
  - Helps healthy cells defend themselves against the virus
  - Strengthens the immune system, which helps to stop the virus from growing in number



# Contraindications to therapy

## Absolute

- Pregnancy
- Decompensated cirrhosis
- End stage kidney disease
- Severe or uncontrolled psychiatric disease
- Cardiopulmonary disease
- Severe Autoimmune disease
- Severe anemia
- Noncompliance

## Relative

- Cirrhosis, compensated
- Controlled psychiatric disease
- Mild anemia/leukopenia
- Renal insufficiency
- Mild autoimmune disease

# How long is therapy?

## Length of Treatment

- Either 24 or 48 weeks  
(about six months or one year)
- Your doctor, physician assistant or nurse practitioner decides number of weeks based on your individual profile and genotype

# Most Common Adverse Effects

## PEG-interferon

- Neutropenia, thrombocytopenia
- Depression
- Hypothyroidism, hyperthyroidism
- Irritability
- Concentration and memory disturbances
- Visual disturbances, retinopathy
- Fatigue, muscle aches, headaches, low-grade fever
- Nausea and vomiting
- Skin irritation
- Weight loss
- Insomnia
- Hearing loss, tinnitus
- Interstitial fibrosis
- Hair thinning
- Exacerbation of autoimmune disease

## Ribavirin

- Hemolytic anemia
- Fatigue
- Itching
- Rash
- Sinusitis
- Gout
- Pregnancy Category X

# What Is Treatment Really Like?

- It may be difficult, but most people who need treatment are able to get through it!
- Many people will have side effects that may include:
  - Flu-like symptoms
  - Upset stomach
  - Fatigue
  - Skin problems
  - Irritability
  - Blood problems
- If you are prepared for the side effects, some may be easier to handle
- Your healthcare provider will also need to watch your blood counts and will monitor you for depression
- Remember to talk to your healthcare provider about any side effects to help address any problems that may come up

# Does therapy work?

- With pegylated interferon and ribavirin, you have a 54-63% chance of being cured of the virus!
- Once you get rid of the virus with treatment, it is gone forever!

# What if it doesn't work?

- New therapies under investigation
  - Oral medications that fight the virus directly
  - Need to be given with interferon and ribavirin
  - Additional drug = additional side effects
- Complementary and Alternative Medications (CAM)

# Conventional vs CAM

- Conventional/Western
  - Aim to eradicate the cause +/- reverse process
  - New therapies introduced via double-blind RCTs
  - Endpoints: morbidity, mortality, surrogate markers that reflect known cause and natural history
- CAM
  - Aim to improve patient's feelings of well being
  - Some modalities not easily evaluated in classic double-blind, RCT format
  - To correct the disturbance in health that affects how the patient interacts with family and environment

# What Is CAM?

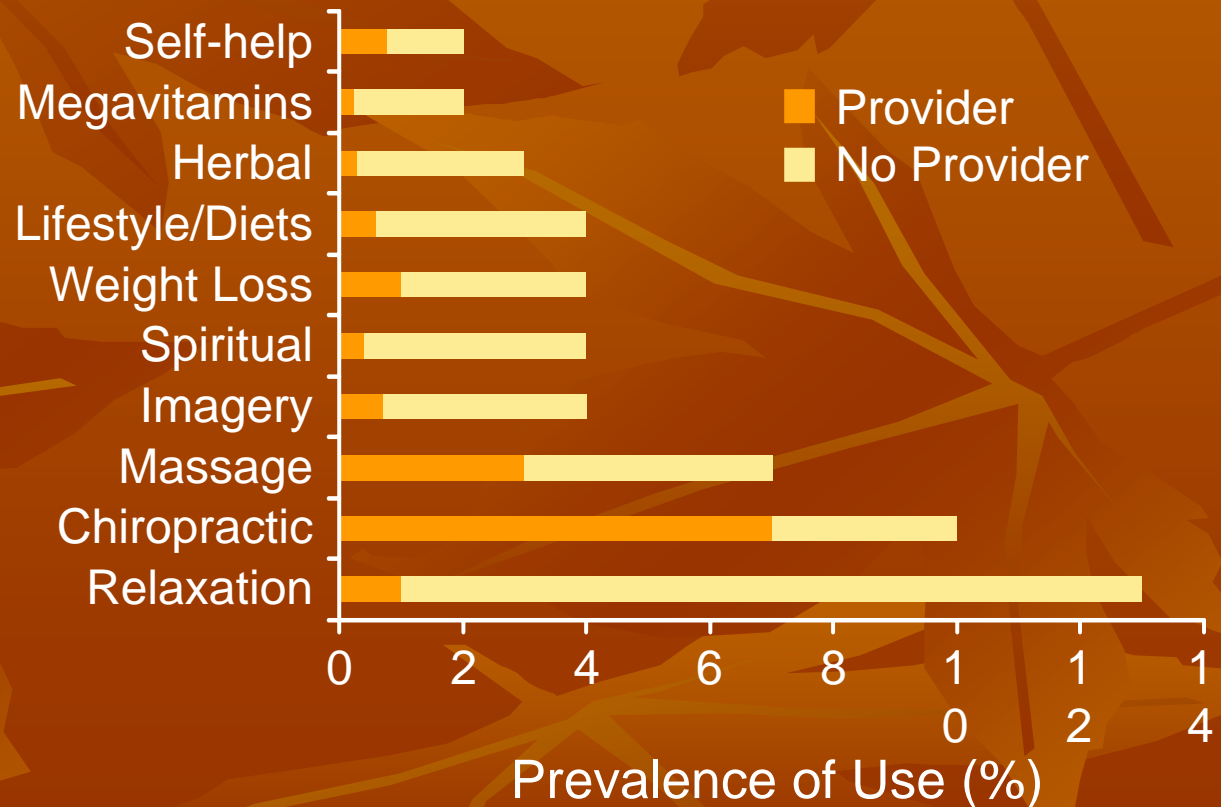
- Acupuncture
- Homeopathy
- Herbal medicine
- Relaxation therapies
- Well-established disciplines
  - Chiropractic therapy
  - Osteopathy
- Nonclinical self-care and lifestyle practices
  - Massage
  - Yoga
  - Tai chi chuan
  - Ayurvedic care
  - Diet
  - Exercise
  - Spiritual healing

# Epidemiology of CAM

- Prevalence of the use of complementary and alternative medicine (CAM) in US adults
  - 1990 2.5%
  - 1997 12.1%
  - 2002 18.9%
- 1999 Estimated sales >\$3 billion in the US
- Worldwide, underdeveloped countries
- Europe
  - Regulate herbs as prescription or nonprescription medicines available only through a pharmacist
  - German physicians receive medical school training in medicinal herbs (and must pass a test to become licensed)

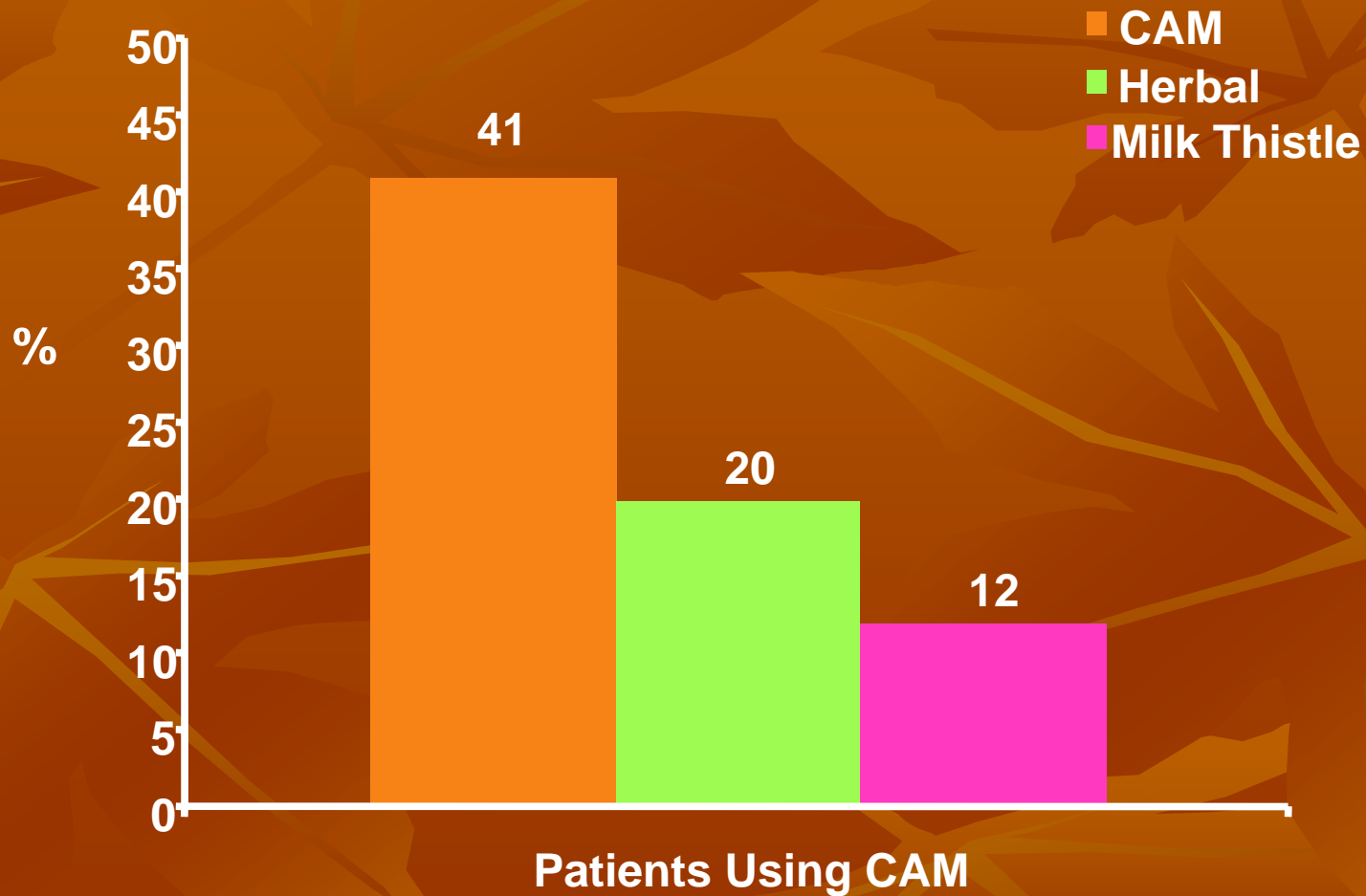
# Unconventional Medicine in the US

- Telephone interviews in 1990 with 1,539 adults
- 34% used at least 1 type of CAM in the last year
  - 1/3 saw providers of CAM; average 19 visits/year at \$27.06/visit



# Percent of Patients Using CAM

## *Liver Clinics*



# Appeal of CAM

## Among Patients With HCV Infection

- A chronic illness with limited treatment success
- Frustration with uncertainty of prognosis
  - Limited information available from providers
  - Absence of signs and symptoms
- Lack of symptoms vs side effects of conventional treatment
- Desire for a “holistic” approach to therapy

# Non-herbal CAM

- Acupuncture
- Moxibustion: applies heat to acupuncture points to disperse disharmony and relieve pain
- Acupressure
- Exercise and meditation
- All can help with symptoms of HCV and side effects of therapy

# Diet

- Avoid alcohol of any type
- No smoking
- Limit intake of caffeine
- Drink green tea: possible protective and anti-cancer effects
  - Limit caffeine
- Limit red meat to no more than once per week
  - Difficult to digest
- 80-120 grams of protein per day from soy and soy products, beans, legumes, or fish
- Low-fat, low-cholesterol diet is best

# Vitamin Supplements

- Multivitamin without iron
  - Excess iron increases inflammation in the liver
  - Powder capsule formula is best for digestion
  - Can sometimes make people nauseated: take with food
- Fatty acids
  - Decreases muscle aching and fibromyalgia symptoms
  - Get refrigerated type to avoid rancidity

# Vitamin Supplements

- Avoid Vitamin A unless you have been documented to be deficient
- Calcium with vitamin D two-three times daily
- Vitamin E: 400-1200 IU per day
  - Can help cell-mediated immune function, skin problems, memory loss
- Vitamin C: improves the immune function
- Lactobacillus acidophilus: aids with digestion
  - Use refrigerated powdered type

# Stress

- High levels of stress can divert energy from your immune system, digestion, and other systems
- The body is made to deal with acute stress: the chronic stress is what causes problems
- Signs of stress: headaches, insomnia, fatigue, neck or shoulder pain, irritability, loss of concentration, loss of appetite, stomach pain

# Dealing with Stress

- Plenty of rest, nutrition, exercise
- Clear your head
  - 10 minutes of every day to do nothing
- Deep breathing exercises
- Make sure to take time to enjoy life
  - Laughter really is a great medicine!
- Don't be afraid to ask for help
- Say no if you are overburdened
- Change what you can and accept the rest

# Herbal Supplements

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- Over 29,000 products on the market
- Teas, powders, tablets, capsules
- Have used for centuries
  - Traced back as far as ancient China, India, Sumeria
- Supplement manufacturers do not need to
  - Register with FDA
  - Prove product safety
  - Get FDA approval before producing or selling supplements
- Required to list all ingredients

# Credibility of Herbal Medicines

- Examples of phytomedicines now mainstream
  - Digitalis from Foxglove
  - Salicylate from Willow Bark
  - Morphine and opiates from opium
  - Cocaine from coca leaves
  - Rapamycin from fungus (Easter Island)
- All potent and therapeutic
- WHO records that >80% of world still relies on botanical medicines



# Contemplating Taking Herbs

- Discuss with both Western and Eastern providers
- Ensure herbs are provided from reputable source: licensed and trained practitioner
- Make sure that what you are taking is for the current individual diagnosis that you have
- Watch for negative reactions
  - Discontinue herb if skin rash, substantial nausea, bloating, fatigue, right sided abdominal pain and jaundice

# CAM and Conventional Medicine

- No data on safety of herbs and supplements during treatment with interferon and ribavirin
- Be careful about drug interactions
  - Chamomile
  - St John's Wort
  - Milk thistle can interact as well
- Discuss both types of treatment with both Western and Eastern providers

# Milk Thistle (Silymarin)

- Shown to prevent liver damage from various toxins
  - Prevents damage from free radical molecules
- Stimulates the production of new liver cells
- Anti-inflammatory but no antiviral effect
- Does not cure viral hepatitis
- Safe

# Milk Thistle (Silymarin)

- Clinical trials: Adverse effects few
  - Acute viral hepatitis: More rapid normalization of AST/ALT
  - Toxic injury: *Amanita phalloides* - improved histology, survival in dogs, case series in humans
  - Alcoholic liver disease: Randomized controlled trials (RCTs) show improved AST/ALT/GGT
  - Chronic hepatitis/cirrhosis: 1 trial showed improved survival



At Risk S	47	42	40	36	33	27	20	16	13	6	2	1	1
At Risk P	45	39	35	33	29	26	20	16	10	7	2	-	-

# Milk Thistle (Silymarin)

- Choose a brand that has silibin and phosphotidyl choline
  - Better absorbed
- Typical dose 140-420 mg per day in divided doses of 2-3 times per day of 70-80% silymarin
- Large doses can cause loose stools

# Licorice Root

- A mainstay of Chinese formulas
- Balances herbal action
- Often appears as glycyrrhizin
- Inhibits collagen (scar tissue) production
- Induces natural interferon
- Trials suggest reduced ALT, improved appearance of liver on biopsy
- No effect on HCV RNA

# Licorice Root

- Can cause adverse reactions in 20% of people who take it
  - May trigger disturbances in body's electrolytes
  - May cause high blood pressure
  - Thyroid disorders

# Ginger

- Beneficial for nausea
- Be careful if you have gallstones
- Can worsen blood clotting: don't take with aspirin or if your blood doesn't clot well

# Risks of CAM

- Indirect risks
  - Delay/avoidance of effective treatment
- Direct health risks
  - Toxic reactions
  - Pharmacologic effects
  - Mutagenic effects
  - Drug interactions
  - Contamination
  - Substitutions or adulteration of ingredients



**You're Eating Too Many Herbs!**

# Herbals supplements implicated in causing hepatotoxicity

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- *Atractylis gummifera*
- Black cohosh
- *Callilepis laureola*
- Chaparral

## Chinese herbal medicines

- Chaso and Onshido
- Sho (Do)-saiko-to
- Jin Bu Huan
- Ma huang
- Shou-wa-pian

- Comfrey/pyrrolizidine alkaloids
- Germander
- Greater celandine
- Kava
- Mistletoe
- Pennyroyal
- Skullcap and valerian

# Common Chinese Herbs with potentially liver-toxic substances

- An Gong Niu Huang Wan
- Bi Tong Pian
- Bi Yan Pian
- Dendrobium Moniliforme
- Farfunoeiminkam Wan
- Gan Mao Ling
- High Strength Yin Cheng
- Huang Lien Shang Ching Pian
- Ma Hsing Zhe Ke Pian
- Marguerite Acne Pills
- Aconite or aconitum
- Acorus
- Comfrey
- Crotalaria
- Eupatorium
- Germander
- Groundsel
- Heliotropium
- Jin Bu Huan
- Mentha pulegium
- Mistletoe
- Pennyroyal oil
- Hedeoma pulegoides
- Sassafras
- Senicio species
- Senna
- Sophora
- Night Sight Pills
- Niu Huang Chiang Ya Wan
- Pe Min Kan Wan
- Da Huo Luo Wan
- Shen Ling Bai Zhu Pian
- Ta Huo Lo Tan
- Tsai Tsao Wan
- Yin Chiao Chieh Tu Pian
- Zhi Sou Ding Chuam Wan
- Zhong Gan Ling
- Amanita mushroom
- Chaparrel
- Comfrey

In general, combination ingredient supplements are more likely to cause serious adverse events than single ingredient supplements!

# How Do We Counsel Patients Using Alternative Therapies?

- Consider what motivates patients to pursue alternative therapy
  - Educate patients concerning natural history of HCV infection and improving treatment options
- Obtain a thorough history of alternative treatments
- Discuss limited information on efficacy, safety, and potential risks of therapy
- Realize that, although efficacy has not been demonstrated, safe alternative agents are often beneficial for symptoms

# Treatment Options for Hepatitis C

## Western (Allopathic) Medicine Hepatitis C Specialist

Pegylated  
interferon/ribavirin  
or  
Experimental  
protocols

## Integrated Medicine Hepatitis C Specialist

Western therapy and  
complementary and  
alternative medicine

## Complementary and Alternative Medicine Hepatitis C Specialist

*Combination of all/some:*

- Ayurvedic medicine
- Chinese herbs and acupuncture
- Homeopathy
- Mind:body medicine
- Naturopathic treatments
- Nutrition and lifestyle

**Relapse or non-responder:** Try retreatment or use supportive care while waiting for new options. Continue healthcare provider follow-up on a regular basis.

## No treatment or self-treatment

*Discuss possible implications with your hepatitis C specialist/healthcare provider. Understand your risks of cirrhosis or liver cancer.*

# CAM Can Be Beneficial in HCV

- Cannot ignore historical benefits of CAM
- 40% use in liver patients suggests benefit
- Preliminary data promising
- Need more scientific data
  - May ameliorate side effects of conventional therapy
  - Use in those in whom therapy is contraindicated
  - Use in cirrhotics
  - Use in non-responders
  - Potential synergy with conventional therapy
  - Bridge pending advances in conventional therapy