**ADTA 5770: MIDTERM: Prompts & Responses**

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**Student Name Yog Chaudhary**

**IMPORTANT NOTES:**

*--) Prompts must be closely relevant to the student’s selected domain expertise field.*

*--) The LLM must be* ***Google Gemini 2.0 Flash Thinking Experimental.***

* *For the consistency and accuracy of the prompt response evaluation, the student can* ***only use one******LLM****, Google Gemini 2.0 Flash Thinking Experimental*

**IMPORTANT NOTES:**

*--) Sample of the screenshot of the final prompt:*

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AI-generated content may be incorrect.**

**NOTES:**

**--)** *This is* ***not*** *an example of a well-designed prompt. It is only used as a sample of a screenshot.*

*--) The student’s account can be* ***different*** *from “Gemini Advanced” while using the free version of the LLM.*

**IMPORTANT NOTES about the Format of This Document:**

*--) The* ***evaluation*** *of* ***each prompt response*** *must* ***start*** *at the* ***top line*** *of a page,* ***except*** *for PROMPT 1*

**IMPORTANT NOTES: Response Evaluation (***Used for MIDTERM***)**

**Likert Scale 1 – 5 Questionnaire Questions on LLM Response Quality Survey**

**Use the Likert scale of 1 to 5, where:**

**1 = Not at all**

**2 = Some**

**3 = Fair**

**4 = Good**

**5 = Excellent**

To evaluate the LLM’s response quality, the student must use the above Likert scale to answer the following questions in the survey questionnaire:

**--) 1: Question 1: Usefulness and Relevance**: "**To what extent did the LLM's response directly address your prompt and provide information or assistance that was actually useful to you in your intended context?**"

**--) 2: Question 2: Accuracy and Trustworthiness**: "**How accurate and factually correct do you believe the information presented in the LLM's response to be, and how much does this affect your trust in the response as a whole?**"

**--) 3: Question 3: Clarity, Coherence, and Understanding**: "**How clear, well-written, and easy to understand was the LLM's response? Did you find the response logically structured and coherent in its presentation of information?**"

**--) 4: Question 4: Completeness and Depth**: "**Did the LLM's response provide a sufficiently complete answer to your prompt? Did it offer enough depth or detail, or did it feel superficial or lacking in important aspects?**"

**--) 5: Question 5: Overall Satisfaction and Further Assistance Needed**: "**Overall, how satisfied were you with the quality of the LLM's response to your prompt? And, based on the response, do you feel you need to issue further prompts or seek additional information from other sources to achieve your goal?**"

Student Name: Yog Chaudhary

Domain Expertise Field: Healthcare for Clinical Knowledge Assistant

**LLM**: **Google Gemini 2.0 Flash Thinking Experimental**

# Prompt 1: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

* How can I balance my diet to ensure I'm getting all essential nutrients?
* How can a clinical knowledge assistant help patients understand and manage their daily health habits, such as diet, exercise, and sleep, to improve overall well-being?
  + 1. **What’s a healthy diet, in plain English?**

Prompt:

Analyze a nutritionist and explain what a healthy diet is in plain English. Use simple language and examples to help a general audience understand the key components of a balanced diet, such as fruits, vegetables, proteins, and whole grains. Discuss why each component is important and provide practical tips for maintaining a healthy diet in everyday life.

* 1. **2. How do I know if I’m getting enough vitamins and minerals?**

Prompt:

Analyze a healthcare consultant and explain how someone can determine if they are getting enough vitamins and minerals. Discuss common signs of deficiencies, the role of blood tests, and how to interpret results. Provide practical advice on how to ensure adequate intake through diet or supplements and highlight the importance of consulting a healthcare provider for personalized recommendations.

**1.1.3. How often should I work out?**

Prompt:

Analyze a fitness trainer and explain how often someone should work out based on their age, fitness level, and goals. Discuss the benefits of different types of exercise (e.g., cardio, strength training, flexibility) and provide a sample weekly workout plan for a beginner. Include tips for staying motivated and avoiding injury.

**1.1.4. How much sleep do I really need each night?**

Prompt:

Analyze a sleep specialist and explain how much sleep someone needs each night based on their age and lifestyle. Discuss the consequences of insufficient sleep, such as fatigue, poor concentration, and long-term health risks. Provide practical tips for improving sleep quality and creating a bedtime routine that promotes restful sleep.

**1.1.5. Is sleep really that important for my health?**

Prompt:

Analyze a healthcare educator and explain why sleep is critically important for overall health. Discuss the physical, mental, and emotional benefits of adequate sleep, as well as the risks associated with chronic sleep deprivation. Provide actionable tips for improving sleep hygiene and explain how sleep impacts other areas of health, such as diet and exercise.

## Combined Prompting Techniques

* **Instructional Prompting**: Directs the model to perform a specific task (e.g., explain how clinical knowledge assistants can help patients manage health habits).
* **Role-Based Prompting:** Assigns the model a role (e.g., healthcare educator or clinical knowledge assistant designer).
* **Contextual Prompting:** Provides background information (e.g., the importance of daily health habits for overall well-being).
* **Open-Ended Prompting:** Encourages detailed and exploratory responses.

## Prompt: Initial Version

Analyze clinical knowledge assistants to improve healthcare. It can help patients understand and manage their daily habits, such as diet, exercise, and sleep, to improve their overall well-being. And also discuss the potential benefits, challenges, and practical applications.

## PROMPT: Final Version

Analyze a healthcare educator specializing in clinical knowledge assistants. Explain how these systems can help patients understand and manage their daily health habits, such as diet, exercise, and sleep, to improve overall well-being. Discuss the potential benefits, challenges, and practical applications, and provide actionable recommendations for patients and healthcare providers.

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## Response: Final Version

**Introduction**

The healthcare industry is undergoing a transformative shift with the integration of artificial intelligence into clinical practice. Among the most promising advancements is the development of AI-powered clinical knowledge assistants. These tools are designed to support healthcare professionals by providing instant access to accurate, evidence-based medical information, aiding in diagnosis, treatment planning, and patient management.

**Response:**

Clinical knowledge assistants (CKAs) can play a vital role in helping patients understand and manage their daily health habits, such as diet, exercise, and sleep, to improve overall well-being.

Benefits:

* Personalized Guidance: CKAs can analyze individual patient data to provide tailored recommendations for diet, exercise, and sleep based on their unique needs and goals.
* Education and Awareness: These systems can explain the importance of healthy habits in plain language, making it easier for patients to understand and follow recommendations.
* Real-Time Feedback: CKAs can track progress and provide real-time feedback, helping patients stay motivated and adjust as needed.

Challenges:

* Data Accuracy: The quality of recommendations depends on the accuracy and completeness of the data provided by patients.
* User Engagement: Patients may lose interest or fail to consistently use the system, reducing its effectiveness.
* Privacy Concerns: Patients may be hesitant to share personal health data due to privacy and security concerns.

Practical Applications:

* Diet Management: CKAs can suggest meal plans, track nutrient intake, and alert patients to deficiencies or excesses.
* Exercise Planning: These systems can recommend workout routines based on fitness levels and goals, and track progress over time.
* Sleep Optimization: CKAs can analyze sleep patterns and provide tips for improving sleep quality and duration.

Recommendations:

* For Patients: Use CKAs as a tool to stay informed and motivated but always consult a healthcare provider for personalized medical advice.
* For Providers: Integrate CKAs into patient care plans to enhance education and support and ensure privacy and security measures are in place.
* For Developers: Focus on user-friendly interfaces and engaging features to improve patient adherence and satisfaction."

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance

SCORE: 4/25

The response is highly relevant to the question, addressing how CKAs can help patients manage daily health habits. It provides practical insights and actionable recommendations.

### Questionnaire: Question 2: Accuracy and Trustworthiness

SCORE: 4/25

The response is accurate and well-reasoned, but it could benefit from citing specific studies or examples to enhance trustworthiness.

### Questionnaire: Question 3:  Clarity, Coherence, and Understanding

SCORE: 4/25

The response is clear, logically structured, and easy to understand. It uses plain language and avoids unnecessary jargon.

### Questionnaire: Question 4: SCORE: Completeness and Depth

SCORE: 4/25

The response covers all key aspects but could delve deeper into technical implementation details or provide case studies in added depth.

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed

SCORE: 5/25

The response is highly satisfactory and provides a comprehensive overview. Further assistance might include examples of successful CKA implementations or a step-by-step guide for patients.

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 4/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 5/25

TOTAL SCORES: 24

SUM UP 5 SCORES HERE: 24/5

AVERAGE SCORES: 4.8

# Prompt 2: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Flu (Influenza):**

* How can I differentiate between the flu, a cold, and seasonal allergies, and what are the best ways to manage symptoms for each condition?

**2.1.1 What's the difference between a cold and the flu?**

Prompt:

Analyze a medical educator and explain the key differences between a cold and the flu. Discuss the symptoms, severity, and duration of each condition, and provide practical tips for managing symptoms at home. Use simple language to make the information accessible to a general audience.

**2.1.2 What are the symptoms of the common cold versus the flu?**

Prompt:

Analyze a healthcare provider and compare the symptoms of the common cold and the flu. Highlight the key differences in severity, onset, and duration, and explain how these differences can help patients identify their condition. Provide recommendations for when to seek medical attention.

**2.1.3 How do I know if I have allergies or a cold?**

Prompt:

Analyze an allergist and explain how to differentiate between allergies and a cold. Discuss the overlapping symptoms, such as runny nose and sneezing, and the unique symptoms of each condition. Provide practical advice for managing symptoms and when to consult a doctor.

**2.1.4 How long do allergies last?**

Prompt:

Analyze a healthcare consultant and explain how long allergies typically last. Discuss the factors that influence duration, such as allergen exposure and individual sensitivity. Provide tips for reducing symptoms and improving quality of life during allergy season.

**2.1. 5 Are allergies genetic?**

Prompt:

Analyze a geneticist and explain whether allergies are genetic. Discuss the role of family history and environmental factors in the development of allergies. Provide practical advice for individuals with a family history of allergies on how to manage their risk.

**2.1.6 Can you get allergies in the winter?**

Prompt:

Analyze an immunologist and explain whether allergies can occur in the winter. Discuss common winter allergens, such as mold and dust mites, and how they differ from seasonal allergens like pollen. Provide tips for managing winter allergies effectively.

## Combined Prompting Techniques

* Instructional Prompting: Directs the model to perform a specific task (e.g., differentiate between conditions and suggest management strategies).
* Role-Based Prompting: Assigns the model a role (e.g., healthcare provider or medical educator).
* Contextual Prompting: Provides background information (e.g., the overlap in symptoms between flu, cold, and allergies).
* Open-Ended Prompting: Encourages detailed and exploratory responses (e.g., management strategies for each condition).

## Prompt: Initial Version

Explain how to differentiate between the flu, a cold, and seasonal allergies, and provide recommendations for managing symptoms of each condition.

## PROMPT: Final Version

Analyze a healthcare provider and explain how to differentiate between the flu, a cold, and seasonal allergies. Discuss the key symptoms of each condition, how they overlap, and how they can be distinguished. Provide practical recommendations for managing symptoms at home and when to seek medical attention.

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## Response: Final Version

**Flu (Influenza)**

Influenza, commonly known as the flu, is a contagious respiratory infection caused by influenza viruses, primarily types A, B, and C, with seasonal outbreaks impacting public health. It spreads through respiratory droplets from coughs, sneezes, or contaminated surfaces, with higher risks for young children, the elderly, pregnant women, and individuals with chronic illnesses. Symptoms include fever, cough, sore throat, muscle aches, and fatigue, often mistaken for the common cold or COVID-19. Treatment includes antiviral medications like oseltamivir and supportive care. Prevention focuses on annual flu vaccination, good hygiene practices, and public health measures to reduce transmission and complications like pneumonia.

**Response:**

Differentiating between the flu, a cold, and seasonal allergies can be challenging due to overlapping symptoms, but there are key differences to look for:

**Flu (Influenza):**

* Symptoms: High fever, body aches, chills, fatigue, sore throat, cough, and headache.
* Onset: Sudden and severe.
* Duration: 1-2 weeks.
* Management: Rest, hydration, over the counter (OTC) medications for fever and pain, and antiviral drugs if prescribed by a doctor.

Common Cold:

* Symptoms: Mild fever, runny or stuffy nose, sneezing, sore throat, and cough.
* Onset: Gradual.
* Duration: 7-10 days.
* Management: Rest, hydration, OTC decongestants, and throat lozenges.

Seasonal Allergies:

* Symptoms: Sneezing, itchy or watery eyes, runny nose, and congestion. No fever or body aches.
* Onset: Triggered by allergens like pollen or dust.
* Duration: As long as exposure to allergens continues.
* Management: Antihistamines, nasal sprays, and avoiding allergens.

Key Differences:

* Fever and body aches are common in the flu but rare in colds and allergies.
* Itchy eyes and sneezing are typical of allergies but not flu or colds.
* Symptoms of the flu are more severe and sudden compared to colds and allergies.

When to Seek Medical Attention:

* Difficulty breathing or chest pain.
* Symptoms lasting more than 10 days.
* High fever that doesn’t improve with medication.

Practical Tips:

* For flu and colds, focus on rest and hydration.
* For allergies, identify and avoid triggers, and use OTC medications as needed.
* Always consult a healthcare provider if symptoms worsen or persist.

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance.

SCORE: 5/25

The response is highly relevant and useful, clearly differentiating between the three conditions and providing actionable management strategies.

### Questionnaire: Question 2: Accuracy and Trustworthiness.

SCORE: 4/25

The response is accurate and well-reasoned, but it could benefit from citing specific medical guidelines or studies to enhance trustworthiness.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding.

SCORE: 4/25

The response is clear, logically structured, and easy to understand. It uses plain language and avoids unnecessary jargon.

### Questionnaire: Question 4: Completeness and Depth.

SCORE: 4/25

The response covers all key aspects but could delve deeper into specific treatments or provide case studies for added depth.

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed

SCORE: 4/25

The response is highly satisfactory and provides a comprehensive overview. Further assistance might include examples of OTC medications or a step-by-step guide for symptom management.

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 5/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 4/25

TOTAL SCORES: 24

SUM UP 5 SCORES HERE 24/5

AVERAGE SCORES: 4.8

# Prompt 3: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Preventive Care:**

* What are the most effective ways to maintain overall health through preventive care, including vaccinations, immune system support, and regular checkups?

**3.1.1. Do I need to be vaccinated?**

**Prompt:**

Analyze a healthcare provider, explain why vaccinations are important for preventive care. Discuss the benefits of vaccines, common misconceptions, and how to determine which vaccines are recommended based on age, health conditions, and lifestyle. Provide practical advice for staying up to date with vaccinations.

**3.1.2. How do I strengthen my immune system?**

Prompt:

Analyze a nutritionist and explain how to strengthen the immune system through diet, exercise, sleep, and stress management. Provide specific examples of immune-boosting foods, types of exercise, and relaxation techniques. Discuss the science behind how these practices support immune function.

**3.1.3. How can I boost my immune system naturally?**

**Prompt:**

Analyze a holistic health coach and explain natural ways to boost the immune system. Discuss the role of nutrition, herbal supplements, sleep, and lifestyle habits in supporting immunity. Provide actionable tips for incorporating these practices into daily life.

**3.1.4. Why do I need a yearly wellness exam?**

**Prompt:**

Analyze a preventive care specialist and explain the importance of yearly wellness exams. Discuss the key components of a wellness exam, such as screenings, blood tests, and discussions with your doctor. Provide practical reasons why these exams are essential for early detection and long-term health.

**5. How often should I get a checkup at the doctor?**

**Prompt:**

Analyze a healthcare consultant and explain how often individuals should get checkups based on their age, health conditions, and risk factors. Discuss the difference between routine checkups and specialized screenings and provide a general guideline for scheduling appointments.

## Combined Prompting Techniques

* Instructional Prompting: Directs the model to perform a specific task (e.g., explain effective preventive care strategies).
* Role-Based Prompting: Assigns the model a role (e.g., healthcare provider or preventive care specialist).
* Contextual Prompting: Provides background information (e.g., the importance of preventive care in maintaining health).
* Open-Ended Prompting: Encourages detailed and exploratory responses (e.g., specific strategies for vaccinations, immune support, and checkups)

## Prompt: Initial Version

Analyze or explain the most effective ways to maintain overall health through preventive care, including vaccinations, immune system support, and regular checkups. Discuss the benefits of each strategy and provide practical recommendations.

## PROMPT: Final Version

Analyze a preventive care specialist and explain the most effective ways to maintain overall health through preventive care. Discuss the importance of vaccinations, strategies to strengthen the immune system, and the role of regular checkups. Provide practical recommendations for individuals to incorporate these practices into their daily lives.

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## Response: Final Version

Response:

Maintaining overall health through preventive care involves a combination of vaccinations, immune system support, and regular checkups. Here’s a detailed breakdown of each strategy:

Vaccinations:

* Importance: Vaccines protect against serious diseases like influenza, measles, and COVID-19. They help prevent outbreaks and reduce the severity of illnesses.
* Recommendations: Stay up to date with recommended vaccines based on age, health conditions, and lifestyle. Consult your healthcare provider for a personalized vaccination schedule.

Strengthening the Immune System:

* Diet: Eat a balanced diet rich in fruits, vegetables, whole grains, and lean proteins. Key nutrients like vitamin C, vitamin D, and zinc support immune function.
* Exercise: Engage in regular physical activity, such as walking, yoga, or strength training, to boost immunity and reduce stress.
* Sleep: Aim for 7-9 hours of quality sleep each night to allow your body to repair and regenerate.
* Stress Management: Practice mindfulness, meditation, or deep breathing to reduce stress, which can weaken the immune system.

Regular Checkups:

* Importance: Regular checkups help detect potential health issues early, when they are easier to treat. They also provide an opportunity to discuss preventive measures with your doctor.
* Frequency: Adults should have a yearly wellness exam, while the frequency of other checkups may depend on age, health conditions, and risk factors.
* Key Screenings: Blood pressure, cholesterol, blood sugar, and cancer screenings (e.g., mammograms, colonoscopies) are essential for early detection.

Practical Recommendations:

* Create a preventive care schedule that includes vaccinations, annual checkups, and regular screenings.
* Adopt healthy lifestyle habits, such as a balanced diet, regular exercise, and stress management, to support your immune system.
* Stay informed about preventive care guidelines and consult your healthcare provider for personalized advice.

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance

SCORE: 4/25

The response is highly relevant and useful, providing actionable strategies for maintaining health through preventive care

### Questionnaire: Question 2: Accuracy and Trustworthiness

SCORE: 4/25

The response is accurate and well-reasoned, but it could benefit from citing specific medical guidelines or studies to enhance trustworthiness.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding

SCORE: 4/25

The response is clear, logically structured, and easy to understand. It uses plain language and avoids unnecessary jargon.

### Questionnaire: Question 4: SCORE: Completeness and Depth

SCORE: 4/25

The response covers all key aspects but could delve deeper into specific vaccines, immune-boosting foods, or examples of preventive screenings.

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed

SCORE: 4/25

The response is highly satisfactory and provides a comprehensive overview. Further assistance might include a sample preventive care schedule or a list of immune-boosting foods.

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 4/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 4/25

TOTAL SCORES: 20

SUM UP 5 SCORES HERE: 20/5

AVERAGE SCORES: 4

# Prompt 4: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Medications & Drugs:**

* How can I safely and effectively manage my medications, including understanding when antibiotics are necessary, proper storage, disposal of expired drugs, and recognizing signs of addiction or adverse reactions?

**4.1.1. Why do I need antibiotics for some infections but not others?**

**Prompt:**

Analyze a healthcare provider and explain why antibiotics are necessary for bacterial infections but not viral infections. Discuss the risks of antibiotic misuse, such as resistance, and provide practical advice for patients on when to seek antibiotics and how to use them responsibly.

**4.1.2. Where should I store my medications?**

**Prompt:**

Analyze a pharmacist and explain the best practices for storing medications. Discuss the importance of proper storage conditions, such as temperature and humidity, and provide specific recommendations for common medications. Highlight safety tips to prevent accidental ingestion by children or pets.

**4.1.3. What should I do with expired medications?**

**Prompt:**

Analyze a healthcare consultant and explain how to safely dispose of expired medications. Discuss the risks of using expired drugs, methods for safe disposal (e.g., take-back programs, FDA guidelines), and provide step-by-step instructions for patients**.**

**4.1.4. How do I know if I'm addicted to medication?**

**Prompt:**

Analyze an addiction specialist and explain how to recognize signs of medication addiction. Discuss common at-risk medications, behavioral and physical signs of addiction, and provide practical advice for seeking help and treatment.

**4.1.5. What's the difference between side effects and an allergic reaction?**

**Prompt:**

Analyze a healthcare educator and explain the difference between medication side effects and allergic reactions. Discuss common examples of each, how to identify severe reactions, and provide practical advice for patients on when to seek medical attention.

## Combined Prompting Techniques

* Instructional Prompting: Directs the model to perform a specific task (e.g., explain safe medication management practices).
* Role-Based Prompting: Assigns the model a role (e.g., pharmacist or healthcare provider).
* Contextual Prompting: Provides background information (e.g., the importance of proper medication and storage).
* Open-Ended Prompting: Encourages detailed and exploratory responses (e.g., recognizing signs of addiction or adverse reactions

## Prompt: Initial Version

Explain how to safely and effectively manage medications, including understanding when antibiotics are necessary, proper storage, disposal of expired drugs, and recognizing signs of addiction or adverse reactions.

## PROMPT: Final Version

Analyze a pharmacist and explain how to safely and effectively manage medications. Discuss when antibiotics are necessary, proper storage practices, safe disposal of expired drugs, and how to recognize signs of addiction or adverse reactions. Provide practical recommendations for patients to ensure safe medication use.

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## Response: Final Version

When Antibiotics Are Necessary:

* Purpose: Antibiotics are used to treat bacterial infections, such as strep throat or urinary tract infections, but they are not effective against viral infections like the flu or common cold.
* Misuse Risks: Overuse or misuse of antibiotics can lead to antibiotic resistance, making infections harder to treat.
* Recommendations: Always take antibiotics as prescribed by your doctor and complete the full course, even if you feel better.

Proper Medication Storage:

* Location: Store medications in a cool, dry place, away from direct sunlight and moisture. Avoid storing them in bathrooms or kitchens.
* Safety: Keep medications out of reach for children and pets. Use childproof containers if necessary.
* Temperature: Some medications require refrigeration. Check the label for specific storage instructions.

Disposal of Expired Medications:

* Importance: Expired medications may lose effectiveness or become harmful.
* Methods:
* Take unused or expired medications to a drug take-back program or pharmacy.
* If no take-back program is available, follow FDA guidelines for safe disposal at home (e.g., mixing with unpalatable substances like coffee grounds).
* Do not flush medications unless instructed by the label or a healthcare provider.

Recognizing Signs of Addiction:

* Common Signs: Taking higher doses than prescribed, craving medications, or continuing use despite negative consequences.
* At-Risk Medications: Opioids, benzodiazepines, and stimulants are commonly associated with addiction.
* Recommendations: If you suspect addiction, seek help from a healthcare provider or addiction specialist immediately.

Side Effects vs. Allergic Reactions:

* Side Effects: Common and expected reactions to medications, such as nausea or drowsiness. These are usually mild and temporary.
* Allergic Reactions: Immune system responses that can be severe, such as hives, swelling, or difficulty breathing. These require immediate medical attention.
* Recommendations: Report any unusual or severe reactions to your healthcare provider.

Practical Tips:

* Keep a list of all medications, including dosages and schedules.
* Use pill organizers to avoid missing doses or taking incorrect amounts.
* Regularly review your medications with your doctor or pharmacist to ensure they are still necessary and effective

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance

SCORE: 4/25

The response is highly relevant and useful, providing actionable strategies for safe medication management.

### Questionnaire: Question 2: Accuracy and Trustworthiness

SCORE: 4/25

The response is accurate and well-reasoned, but it could benefit from citing specific medical guidelines or studies to enhance trustworthiness.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding

SCORE: 4/25

The response is clear, logically structured, and easy to understand. It uses plain language and avoids unnecessary jargon.

### Questionnaire: Question 4: Completeness and Depth

SCORE: 4/25

The response covers all key aspects but could delve deeper into specific examples of medications, storage conditions, or disposal methods.

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed Overall Satisfaction and Further Assistance Needed

SCORE: 4/25

The response is highly satisfactory and provides a comprehensive overview. Further assistance might include a sample medication list or a step-by-step guide for safe disposal

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 4/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 5/25

TOTAL SCORES: 21

SUM UP 5 SCORES HERE 21/5

AVERAGE SCORES: 4.2

# Prompt 5: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Specific Populations and Life Stage:**

* What are the most common health concerns for different stages of life, including children, adults, and the elderly, and how can individuals and caregivers address these issues effectively?

**5.1.1. What are common health problems for kids?**

Prompt:

Analyze a pediatrician and explain the most common health problems in children, such as infections, allergies, and developmental concerns. Discuss the symptoms, prevention strategies, and when to seek medical attention. Provide practical tips for parents to keep their children healthy.

**5.1.2. How can I protect my kids from getting sick at school?**

Prompt:

Analyze a school health consultant and explain how parents can protect their children from getting sick at school. Discuss the role of vaccinations, hygiene practices, and nutrition in preventing illnesses. Provide actionable tips for parents to implement at home and communicate with schools.

**5.1.3. What are the signs of dementia in elderly parents?**

Prompt:

Analyze a geriatrician and explain the signs of dementia in elderly parents, such as memory loss, confusion, and changes in behavior. Discuss the importance of early detection and provide practical advice for caregivers on how to support their loved ones and seek medical help.

**5.1.4. Are there health issues that are more common in men?**

Prompt:

Analyze a men’s health specialist and explain the health issues that are more common in men, such as heart disease, prostate cancer, and mental health challenges. Discuss the risk factors, prevention strategies, and the importance of regular checkups. Provide practical recommendations for men to maintain their health.

**5.1.5. What are some common women's health issues?**

Prompt:

Analyze a women’s health specialist and explain common health issues in women, such as reproductive health, breast cancer, and osteoporosis. Discuss the symptoms, risk factors, and prevention strategies. Provide practical advice for women to prioritize their health at different life stages.

## Combined Prompting Techniques

* Instructional Prompting: Directs the model to perform a specific task (e.g., explain common health concerns and solutions for different life stages).
* Role-Based Prompting: Assigns the model a role (e.g., pediatrician, geriatrician, or family healthcare provider).
* Contextual Prompting: Provides background information (e.g., the importance of addressing health concerns at each life stage).
* Open-Ended Prompting: Encourages detailed and exploratory responses (e.g., practical solutions for caregivers and individuals).

## Prompt: Initial Version

Explain the most common health concerns for different life stages, including children, adults, and the elderly, and provide practical recommendations for addressing these issues effectively.

## PROMPT: Final Version

Analyze a family healthcare provider and explain the most common health concerns for different stages of life, including children, adults, and the elderly. Discuss the unique challenges and risks at each stage and provide actionable recommendations for individuals and caregivers to manage these issues effectively.

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## Response: Final Version

Response:

Health concerns vary significantly across different life stages, and understanding these issues can help individuals and caregivers take proactive steps to maintain well-being. Here’s a breakdown of common health concerns and practical recommendations for each stage:

Children (0-12 years):

Common Issues:

* Infections: Colds, flu, ear infections, and strep throat.
* Allergies: Food allergies, asthma, and environmental allergies.
* Developmental Concerns: Speech delays, learning disabilities, and behavioral issues.

Recommendations:

* Ensuring regular pediatric checkups and vaccinations.
* Promote a balanced diet, regular exercise, and good hygiene practices.
* Monitor developmental milestones and seek early intervention if needed.

Adolescents (13-19 years):

Common Issues:

* Mental Health: Anxiety, depression, and eating disorders.
* Substance Abuse: Experimentation with drugs, alcohol, and tobacco.
* Physical Health: Acne, obesity, and sports injuries.

Recommendations:

* Encourage open communication about mental health and peer pressure.
* Provide education on the risks of substance abuse.
* Promote healthy lifestyle habits, including nutrition and physical activity.

Adults (20-64 years):

Common Issues:

* Chronic Conditions: Hypertension, diabetes, and heart disease.
* Mental Health: Stress, burnout, and work-life balance challenges.
* Reproductive Health: Fertility issues, pregnancy, and menopause.

Recommendations:

* Schedule regular health screenings and manage chronic conditions with a healthcare provider.
* Practice stress management techniques, such as mindfulness and exercise.
* Stay informed about reproductive health and seek medical advice when needed.

Elderly (65+ years):

Common Issues:

* Cognitive Decline: Dementia, Alzheimer’s, and memory loss.
* Mobility Issues: Arthritis, osteoporosis, and falls.
* Chronic Diseases: Heart disease, stroke, and cancer.

Recommendations:

* Encourage regular cognitive and physical activity to maintain mental and physical health.
* Ensure a safe home environment to prevent falls and injuries.
* Schedule regular checkups and screenings for early detection of chronic diseases.

Practical Tips for Caregivers:

* Stay informed about the specific health needs of each life stage.
* Foster open communication with healthcare providers to address concerns promptly.
* Create a supportive environment that promotes healthy habits and preventive care.

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance

SCORE: 5/25

The response is highly relevant and useful, addressing common health concerns across life stages and providing actionable recommendations.

### Questionnaire: Question 2: Accuracy and Trustworthiness

SCORE: 4/25

The response is accurate and well-reasoned, but it could benefit from citing specific medical guidelines or studies to enhance trustworthiness.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding

SCORE: 4/25

The response is clear, logically structured, and easy to understand. It uses plain language and avoids unnecessary jargon

### Questionnaire: Question 4: Completeness and Depth

SCORE: 4/25

The response covers all key aspects but could delve deeper into specific examples of interventions or case studies for added depth.

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed

SCORE: 4/25

The response is highly satisfactory and provides a comprehensive overview. Further assistance might include a sample health checklist for each stage of life or a step-by-step guide for caregivers

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 5/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 4/25

TOTAL SCORES: 21

SUM UP 5 SCORES HERE 21/5

AVERAGE SCORES: 4.2

# Prompt 6: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Specific Populations and Life Stage:**

* How can individuals and caregivers address the unique health challenges faced by specific populations, such as children, the elderly, men, and women, to promote overall well-being and prevent common health issues?

**6.1.1. What are common health problems for kids?**

Prompt:

Analyze a pediatrician and explain the most common health problems in children, such as infections, allergies, and developmental concerns. Discuss the symptoms, prevention strategies, and when to seek medical attention. Provide practical tips for parents to keep their children healthy."

**6.1.2. How can I protect my kids from getting sick at school?**

Prompt:

Analyze a school health consultant and explain how parents can protect their children from getting sick at school. Discuss the role of vaccinations, hygiene practices, and nutrition in preventing illnesses. Provide actionable tips for parents to implement at home and communicate with schools.

**6.1.3. What are the signs of dementia in elderly parents?**

Prompt:

Analyze a geriatrician and explain the signs of dementia in elderly parents, such as memory loss, confusion, and changes in behavior. Discuss the importance of early detection and provide practical advice for caregivers on how to support their loved ones and seek medical help.

**6.1.4. Are there health issues that are more common in men?**

Prompt:

Analyze a men’s health specialist and explain the health issues that are more common in men, such as heart disease, prostate cancer, and mental health challenges. Discuss the risk factors, prevention strategies, and the importance of regular checkups. Provide practical recommendations for men to maintain their health.

**6.1.5. What are some common women's health issues?**

Prompt:

Analyze a women’s health specialist and explain common health issues in women, such as reproductive health, breast cancer, and osteoporosis. Discuss the symptoms, risk factors, and prevention strategies. Provide practical advice for women to prioritize their health at different life stages.

## Combined Prompting Techniques

* Instructional Prompting: Directs the model to perform a specific task (e.g., explain health challenges and solutions for specific populations).
* Role-Based Prompting: Assigns the model a role (e.g., pediatrician, geriatrician, or public health expert).
* Contextual Prompting: Provides background information (e.g., the importance of addressing health challenges for specific populations).
* Open-Ended Prompting: Encourages detailed and exploratory responses (e.g., practical solutions for caregivers and individuals.

## Prompt: Initial Version

Analyze the unique health challenges faced by specific populations, such as children, the elderly, men, and women, and provide practical recommendations for addressing these issues to promote overall well-being.

## PROMPT: Final Version

Act as a public health expert and explain the unique health challenges faced by specific populations, including children, the elderly, men, and women. Discuss the common health issues for each group, the factors contributing to these challenges, and provide actionable recommendations for individuals and caregivers to promote overall well-being and prevent health problems.

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AI-generated content may be incorrect.

## Response: Final Version

**Response:**

Addressing the unique health challenges faced by specific populations is essential for promoting overall well-being and preventing common health issues. Here’s a detailed breakdown for each group:

Children (0-12 years):

Common Health Issues:

* Infections: Colds, flu, ear infections, and strep throat.
* Allergies: Food allergies, asthma, and environmental allergies.
* Developmental Concerns: Speech delays, learning disabilities, and behavioral issues.

Recommendations:

* Ensuring regular pediatric checkups and vaccinations.
* Promote a balanced diet, regular exercise, and good hygiene practices.
* Monitor developmental milestones and seek early intervention if needed.

Elderly (65+ years):

Common Health Issues:

* Cognitive Decline: Dementia, Alzheimer’s, and memory loss.
* Mobility Issues: Arthritis, osteoporosis, and falls.
* Chronic Diseases: Heart disease, stroke, and cancer.

Recommendations:

* Encourage regular cognitive and physical activity to maintain mental and physical health.
* Ensure a safe home environment to prevent falls and injuries.
* Schedule regular checkups and screenings for early detection of chronic diseases.

Men:

Common Health Issues:

* Heart Disease: High blood pressure, high cholesterol, and heart attacks.
* Prostate Health: Prostate cancer and benign prostatic hyperplasia (BPH).
* Mental Health: Depression, anxiety, and substance abuse.

Recommendations:

* Schedule regular health screenings, including blood pressure and cholesterol checks.
* Discuss prostate health with a healthcare provider, especially after age 50.
* Seek help for mental health concerns and practice stress management techniques.

Women:

Common Health Issues:

* Reproductive Health: Menstrual disorders, pregnancy-related issues, and menopause.
* Breast Health: Breast cancer and fibrocystic breast changes.
* Osteoporosis: Bone density loss and fractures.

Recommendations:

* Schedule regular gynecological exams and mammograms as recommended.
* Maintain a calcium-rich diet and engage in weight-bearing exercises to support bone health.
* Seek medical advice for reproductive health concerns and hormonal changes.

Practical Tips for Caregivers:

* Stay informed about the specific health needs of each population.
* Foster open communication with healthcare providers to address concerns promptly.
* Create a supportive environment that promotes healthy habits and preventive care.

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance

SCORE: 4/25

The response is highly relevant and useful, addressing common health challenges for specific populations and providing actionable recommendations.

### Questionnaire: Question 2: Accuracy and Trustworthiness

SCORE: 4/25

The response is accurate and well-reasoned, but it could benefit from citing specific medical guidelines or studies to enhance trustworthiness.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding

SCORE: 4/25

The response is clear, logically structured, and easy to understand. It uses plain language and avoids unnecessary jargon.

### Questionnaire: Question 4: Completeness and Depth

SCORE: 4/25

The response covers all key aspects but could delve deeper into specific examples of interventions or case studies for added depth.

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed

SCORE: 4/25

The response is highly satisfactory and provides a comprehensive overview. Further assistance might include a sample health checklist for each population or a step-by-step guide for caregivers.

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 4/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 4/25

TOTAL SCORES: 20

SUM UP 5 SCORES HERE 20/5

AVERAGE SCORES: 4

# Prompt 7: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Health Information and Resources:**

* How can individuals effectively access, manage, and utilize health information and resources, including reliable online health information, drug safety updates, and personal medical records, to make informed healthcare decisions?

**7.1.1. How can I find reliable health information online?**

**Prompt:**

Analyze as a healthcare consultant and explain how to find reliable health information online. Discuss the characteristics of trustworthy sources, such as government websites and medical organizations, and provide practical tips for avoiding misinformation.

**7.1.2. How can I stay better informed about drugs?**

**Prompt:**

Analyze as a pharmacist and explain how individuals can stay informed about drug safety and updates. Discuss the role of regulatory bodies, medication guides, and healthcare providers in providing accurate information. Provide practical advice for patients to stay updated.

**7.1.3. How do I keep track of my medical records?**

**Prompt:**

Analyze as a patient advocate and explain how individuals can organize and manage their medical records. Discuss the benefits of using patient portals, apps, and physical folders, and provide step-by-step recommendations for maintaining accurate records.

**7.1.4. Can I access my medical records online?**

**Prompt:**

Analyze as a healthcare IT specialist and explain how patients can access their medical records online. Discuss the use of patient portals, security measures, and how to request records if online access is unavailable. Provide practical tips for ensuring data privacy.

**5. How do I keep track of my medical records?**

**Prompt:**

Analyze a healthcare consultant and explain the best practices for keeping track of medical records. Discuss the importance of organization, regular updates, and using digital tools like apps or patient portals. Provide actionable tips for patients to maintain accurate and accessible records**.**

## Combined Prompting Techniques

* Instructional Prompting: Directs the model to perform a specific task (e.g., explain how to access and manage health information).
* Role-Based Prompting: Assigns the model a role (e.g., healthcare consultant or patient advocate).
* Contextual Prompting: Provides background information (e.g., the importance of reliable health information and organized medical records).
* Open-Ended Prompting: Encourages detailed and exploratory responses (e.g., practical tips for managing medical records.

## Prompt: Initial Version

Analyze how individuals can effectively access, manage, and utilize health information and resources, including reliable online health information, drug safety updates, and personal medical records, to make informed healthcare decisions

## PROMPT: Final Version

Analyze as a healthcare consultant and explain how individuals can effectively access, manage, and utilize health information and resources. Discuss how to find reliable online health information, stay informed about drug safety, and organize personal medical records. Provide practical recommendations for making informed healthcare decisions.

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AI-generated content may be incorrect.

## Response: Final Version

**Response:**

Accessing, managing, and utilizing health information and resources effectively is crucial for making informed healthcare decisions. Here’s a detailed guide:

Finding Reliable Online Health Information:

* Trusted Sources: Use websites from reputable organizations, such as the World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), and Mayo Clinic.
* Check Credentials: Ensure the information is written or reviewed by healthcare professionals.
* Avoid Misinformation: Be cautious of websites selling products or making exaggerated claims. Cross-check information with multiple reliable sources.

Staying Informed About Drug Safety:

* Official Updates: Regularly check updates from the Food and Drug Administration (FDA) or your country’s equivalent regulatory body.
* Medication Guides: Read the medication guides provided by pharmacists or available online.
* Consult Healthcare Providers: Discuss any concerns or side effects with your doctor or pharmacist.

Managing Personal Medical Records:

* Organize Records: Keep a physical or digital folder for medical records, including test results, prescriptions, and doctor’s notes.
* Use Apps or Portals: Many healthcare providers offer patient portals where you can access and download your medical records.
* Update Regularly: Add new information after each doctor’s visit or medical procedure.

Accessing Medical Records Online:

* Patient Portals: Sign up for your healthcare provider’s patient portal to access records, schedule appointments, and communicate with your doctor.
* Request Copies: If online access is unavailable, request copies of your records from your healthcare provider.
* Ensure Security: Use strong passwords and two-factor authentication to protect your online records.

Making Informed Healthcare Decisions:

* Educate Yourself: Use reliable sources to understand your health conditions and treatment options.
* Ask Questions: Prepare a list of questions for your healthcare provider to clarify doubts and explore alternatives.
* Second Opinions: Seek a second opinion if you’re unsure about a diagnosis or treatment plan.

Practical Tips:

* Create a health information toolkit with your medical records, insurance details, and emergency contacts.
* Use apps like MyChart or Apple Health to centralize and track your health data.
* Regularly review and update your health information to ensure accuracy."…

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance

SCORE: 4/25

The response is highly relevant and useful, providing actionable strategies for accessing and managing health information.

### Questionnaire: Question 2: Accuracy and Trustworthiness

SCORE: 4/25

The response is accurate and well-reasoned, but it could benefit from citing specific medical guidelines or studies to enhance trustworthiness.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding

SCORE: 5/25

The response is clear, logically structured, and easy to understand. It uses plain language and avoids unnecessary jargon

### Questionnaire: Question 4: Completeness and Depth

SCORE: 5/25

The response covers all key aspects but could delve deeper into specific examples of reliable websites or apps for managing medical records.

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed

SCORE: 4/25

The response is highly satisfactory and provides a comprehensive overview. Further assistance might include a sample health information toolkit or a step-by-step guide for using patient portals

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 4/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 5/25

--) 4: Question 4: Completeness and Depth: 5/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 4/25

TOTAL SCORES: 22

SUM UP 5 SCORES HERE 22/5

AVERAGE SCORES: 4.4

# Prompt 8: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Diet and Digestion :**

* How can individuals maintain a healthy diet that supports digestion, provides essential nutrients, and fits within a budget, while also incorporating satisfying and nutritious snacks?

**8.1.1. What are some healthy snacks that will keep me full?**

Prompt:

Analyze a nutritionist and explain healthy snack options that are both nutritious and satisfying. Discuss the importance of combining protein, fiber, and healthy fats to keep you full, and provide specific examples of snacks that fit these criteria.

**8.1.2. What's a healthy diet, in plain English?**

Prompt:

Analyze a dietitian and explain what a healthy diet is in plain English. Discuss the key components of a balanced diet, such as fruits, vegetables, proteins, and whole grains, and provide practical tips for incorporating these into daily meals.

**8.1.3. How do I know if I'm getting enough vitamins and minerals?**

Prompt:

Analyze a healthcare provider and explain how individuals can determine if they are getting enough vitamins and minerals. Discuss common signs of deficiencies, the role of blood tests, and how to ensure adequate intake through diet or supplements.

**8.1.4. What are the best foods to eat for a healthy diet?**

Prompt:

Analyze a nutrition expert, explain the best foods to eat for a healthy diet. Discuss the benefits of nutrient-dense foods, such as leafy greens, lean proteins, and whole grains, and provide practical recommendations for meal planning.

**8.1.5. How can I eat a healthy diet when I'm on a budget?**

Prompt:

Analyze a budget nutritionist and explain how to eat a healthy diet on a budget. Discuss cost-effective food choices, meal planning strategies, and tips for reducing food waste while maintaining nutritional value.

## Combined Prompting Techniques

* Instructional Prompting: Directs the model to perform a specific task (e.g., explain how to maintain a healthy diet and support digestion).
* Role-Based Prompting: Assigns the model a role (e.g., nutritionist or dietitian).
* Contextual Prompting: Provides background information (e.g., the importance of a balanced diet for digestion and overall health).
* Open-Ended Prompting: Encourages detailed and exploratory responses (e.g., practical tips for budget-friendly healthy eating).

## Prompt: Initial Version

Analyze how individuals can maintain a healthy diet that supports digestion, provides essential nutrients, and fits within a budget, while also incorporating satisfying and nutritious snacks.

## PROMPT: Final Version

Analyze a nutritionist and explain how individuals can maintain a healthy diet that supports digestion, provides essential nutrients, and fits within a budget. Discuss the importance of balanced meals, nutrient-rich snacks, and cost-effective food choices. Provide practical recommendations for incorporating these practices into daily life.

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## Response: Final Version

**Response:**

Maintaining a healthy diet that supports digestion, provides essential nutrients, and fits within a budget is achievable with careful planning and smart choices. Here’s a detailed guide:

Balanced Meals for Digestion and Nutrition:

* Fiber-Rich Foods: Include whole grains, fruits, vegetables, and legumes to support digestion and prevent constipation.
* Lean Proteins: Choose sauces like chicken, fish, beans, and tofu to maintain muscle health and keep you full.
* Healthy Fats: Incorporate avocados, nuts, seeds, and olive oil for heart health and nutrient absorption.
* Hydration: Drink plenty of water and herbal teas to aid digestion and overall health.

Nutrient-Rich Snacks:

* Fruits and Vegetables: Apples, carrots, and celery sticks with hummus are satisfying and nutritious.
* Nuts and Seeds: A handful of almonds or pumpkin seeds provide healthy fats and protein.
* Yogurt: Greek yogurt with berries is rich in probiotics and antioxidants.
* Whole Grains: Whole-grain crackers or rice cakes with nut butter are filling and energy-boosting.

Budget-Friendly Healthy Eating:

* Plan Meals: Create a weekly meal plan to avoid impulse purchases and reduce food waste.
* Buy in Bulk: Purchase staples like rice, beans, and oats in bulk to save money.
* Seasonal Produce: Choose fruits and vegetables that are in season for better prices and freshness.
* Cook at Home: Prepare meals at home instead of eating out to control ingredients and costs.

Practical Tips for Daily Life:

* Portion Control: Use smaller plates and measure servings to avoid overeating.
* Meal Prep: Prepare meals and snacks in advance to save time and ensure healthy choices.
* Read Labels: Check food labels for added sugars, sodium, and unhealthy fats.
* Variety: Rotate foods to ensure a wide range of nutrients and prevent boredom.

Supporting Digestion:

* Probiotics: Include fermented foods like yogurt, kefir, and sauerkraut to promote gut health.
* Mindful Eating: Eat slowly and chew thoroughly to aid digestion and prevent overeating.
* Limit Processed Foods: Avoid highly processed foods that can disrupt digestion and nutrient absorption.

Sample Daily Plan:

* Breakfast: Oatmeal with berries and a spoonful of almond butter.
* Snack: Apple slices with a handful of walnuts.
* Lunch: Grilled chicken salad with mixed greens, quinoa, and olive oil dressing.
* Snack: Carrot sticks with hummus.
* Dinner: Baked salmon with steamed broccoli and brown rice.
* Dessert: A small piece of dark chocolate or a bowl of mixed fruit.

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance

SCORE: 4/25

The response is highly relevant and useful, providing actionable strategies for maintaining a healthy diet and supporting digestion.

### Questionnaire: Question 2: Accuracy and Trustworthiness

SCORE: 4/25

The response is accurate and well-reasoned, but it could benefit from citing specific nutritional guidelines or studies to enhance trustworthiness.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding

SCORE: 4/25

The response is clear, logically structured, and easy to understand. It uses plain language and avoids unnecessary jargon.

### Questionnaire: Question 4: Completeness and Depth

SCORE: 4/25

The response covers all key aspects but could delve deeper into specific examples of budget-friendly recipes or meal prep techniques.

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed

SCORE: 5/25

The response is highly satisfactory and provides a comprehensive overview. Further assistance might include a sample weekly meal plan or a list of budget-friendly grocery items.

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 4/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 5/25

TOTAL SCORES: 21

SUM UP 5 SCORES HERE 21/5

AVERAGE SCORES: 4.2

# Prompt 9: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Sleep and Sleep Disorder:**

* What are the potential long-term effects of chronic sleep deprivation on brain health?
* What are the common symptoms of narcolepsy and how is it diagnosed?

**9.1.1. What causes restless legs?**

Prompt:

Analyze a sleep specialist and explain the causes of restless legs syndrome. Discuss the role of iron deficiency, chronic diseases, and medications, and provide practical recommendations for managing symptoms and improving sleep quality.

**9.1.2. How to stop snoring?**

Prompt:

Analyze a healthcare provider and explain how to stop snoring. Discuss the causes, such as obesity and sleep position, and provide practical tips for reducing snoring, including lifestyle changes and medical interventions.

**9.1.3. How much sleep do I really need each night?**

Prompt:

Analyze a sleep expert and explain how much sleep individuals need each night based on their age and lifestyle. Discuss the consequences of insufficient sleep and provide practical tips for achieving the recommended amount of sleep.

**9.1.4. Is sleep really that important for my health?**

Prompt:

Analyze a healthcare educator and explain why sleep is critically important for overall health. Discuss the physical, mental, and emotional benefits of adequate sleep, as well as the risks associated with chronic sleep deprivation.

**9.1 5. What is sleep apnea?**

Prompt:

Analyze a sleep specialist and explain what sleep apnea is, including its types (obstructive and central), symptoms, and treatment options. Discuss the risks of untreated sleep apnea and provide practical advice for managing the condition.

## Combined Prompting Techniques

* Open-ended Prompting – Encourages a broad response with detailed explanations.
* Example-based Prompting – Uses existing questions as a reference to frame the new question.
* Instruction-based Prompting – Directs the model to focus on specific aspects of the topic.

## Prompt: Initial Version

Analyze the long-term effects of chronic sleep deprivation on brain health, considering cognitive function, memory, emotional stability, and risk factors for neurodegenerative diseases."

## PROMPT: Final Version

Analyze or discuss the long-term neurological impacts of chronic sleep deprivation, including its effects on cognitive function, memory retention, emotional regulation, and the potential development of conditions like Alzheimer’s disease. Provide evidence-based explanations.

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AI-generated content may be incorrect.

## Response: Final Version

Chronic sleep deprivation can have severe long-term effects on brain health, impacting cognitive function, memory retention, and emotional regulation. Studies suggest that inadequate sleep disrupts neural connectivity, leading to impaired decision-making, concentration issues, and increased emotional instability. Sleep deprivation is also linked to heightened levels of beta-amyloid plaques, a key factor in the development of Alzheimer’s disease. Furthermore, chronic sleep loss can alter neurotransmitter balance, increasing the risk of anxiety and depression. Over time, these neurological deficits can contribute to accelerated brain aging and neurodegenerative diseases.

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance

Score: 4/25

The response is highly relevant to the question, offering clear and well-structured insights into the neurological effects of sleep deprivation. However, a brief mention of mitigating factors could enhance the completeness.

### Questionnaire: Question 2: Accuracy and Trustworthiness

Score: 4/25

The response is accurate and supported by scientific findings (e.g., beta-amyloid plaques in Alzheimer’s). However, adding direct citations or references to studies would further strengthen its credibility.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding.

Score: 4/25

The response is clear and well-structured, making it easy for a general audience to understand. It avoids unnecessary jargon while still providing depth.

### Questionnaire: Question 4: Completeness and Depth.

Score: 4/25

Explanation: The response provides substantial detail on multiple aspects (cognitive, emotional, and neurodegenerative risks). However, it could include a brief mention of physiological mechanisms, such as how sleep deprivation affects synaptic pruning or glymphatic clearance

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed

Score: 4/25

The response is overall satisfying, addressing key concerns about sleep deprivation's impact on brain health. Additional practical recommendations (e.g., sleep hygiene tips) could improve user engagement.

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 4/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 4/25

TOTAL SCORES: 20

SUM UP 5 SCORES HERE 20/5

AVERAGE SCORES: 4

# Prompt 10: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Healthcare System & Insurance:**

* What is a health savings account (HSA), and how can it be used to manage healthcare costs?

**10.1.1 What's the difference between an HMO and a PPO?**

Prompt:

Analyze Health maintenance organizations (HMOs) and preferred provider organizations (PPOs) are two common types of health insurance plans. Can you explain the key differences between an HMO and a PPO, including their network restrictions, costs, and referral requirements? Please provide a detailed, accurate, and easy-to-understand response suitable for someone comparing health insurance options.

**10.1.2 What is a deductible, and how does it work?**

Prompt:

Analyzing a deductible is a common term in health insurance, but many people find it confusing. Can you explain what a deductible is, how it works, and how it affects out-of-pocket healthcare costs? Please provide a detailed, accurate, and easy-to-understand response suitable for someone learning about health insurance basics.

**10.1.3 What is the Affordable Care Act (ACA), and how does it affect me?**

Prompt:

Analyzing the Affordable Care Act (ACA) is a significant piece of healthcare legislation. Can you explain what the ACA is, its key provisions, and how it might affect an individual's access to healthcare and insurance options? Please provide a detailed, accurate, and easy-to-understand response suitable for someone seeking to understand the impact of the ACA.

**10.1.4 What do I do if my insurance denies a claim?**

Prompt:

Analyzing an Insurance claim denials can be frustrating and confusing. Can you explain the steps an individual should take if their insurance denies a claim, including how to appeal the decision and what documentation might be needed? Please provide a detailed, accurate, and easy-to-understand response suitable for someone navigating the claims process.

**10.1.5 How do I get a referral to a specialist?**

Prompt:

Analyze a Referrals to specialists are often required by health insurance plans. Can you explain how the referral process works, including when a referral is needed, how to request one, and what role a primary care physician plays in the process? Please provide a detailed, accurate, and easy-to-understand response suitable for someone seeking specialist care.

## Combined Prompting Techniques

* Open-Ended Prompting: Encourages a detailed explanation of HSAs and their role in managing healthcare costs.
* Instruction-Based Prompting: Directs the AI to provide specific information about HSAs, including their benefits and usage.
* Example-Based Prompting: Uses the provided healthcare system and insurance questions as a reference for structuring the new question.

## Prompt: Initial Version

Analyze what a health savings account (HSA) is and how it can be used to manage healthcare costs. Provide a detailed and accurate response suitable for someone seeking financial and medical information.

## PROMPT: Final Version

Analyzing a health savings account (HSA) is often mentioned as a way to manage healthcare expenses. Can you explain what an HSA is, how it works, and how it can be used to manage healthcare costs? Please provide a detailed, accurate, and easy-to-understand response suitable for someone seeking reliable financial and medical information.

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AI-generated content may be incorrect.

## Response: Final Version

Final Response:

A Health Savings Account (HSA) is a tax-advantaged savings account designed to help individuals with high-deductible health plans (HDHPs) save money for qualified medical expenses. Here’s how it works and how it can be used to manage healthcare costs

Eligibility:

* To open an HSA, you must be enrolled in a high-deductible health plan (HDHP). The IRS defines HDHPs as plans with a minimum deductible of 1,500forindividualsor3,000 for families in 2023

Tax Benefits:

* Contributions to an HSA are tax-deductible, reducing your taxable income.
* Funds in the account grow tax-free through interest or investments.
* Withdrawals for qualified medical expenses are tax-free.

Contributions:

* Individuals can contribute up to 3,850in2023,andfamiliescancontributeupto7,750.
* Individuals aged 55 and older can make an additional $1,000 catch-up contribution.

Usage:

* HSAs can be used to pay for a wide range of qualified medical expenses, including doctor visits, prescriptions, dental care, vision care, and even some over-the-counter medications.
* Funds can also be used for long-term savings, as unused balances roll over year to year.

Portability:

* The account belongs to you, not your employer, so you can keep it even if you change jobs or health plans.

HSAs are a powerful tool for managing healthcare costs, offering both short-term flexibility and long-term savings potential.

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance

SCORE: 5/25

Explanation: The response is highly useful and relevant, providing a comprehensive explanation of HSAs and their role in managing healthcare costs.

### Questionnaire: Question 2: Accuracy and Trustworthiness

SCORE: 5/25

Explanation: The information is accurate and trustworthy, aligning with IRS guidelines and established financial practices.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding

SCORE: 4/25

Explanation: The response is clear and coherent, though some financial terms (e.g., high-deductible health plans) might require additional explanation for laypersons.

### Questionnaire: Question 4: Completeness and Depth

SCORE: 4/25

Explanation: The response is complete and covers all major aspects of HSAs, though it could briefly mention potential drawbacks or limitations for added depth.

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed

SCORE: 5/25

Explanation: The response is highly satisfactory and provides sufficient information without requiring further assistance.

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 5/25

--) 2: Question 2: Accuracy and Trustworthiness: 5/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 5/25

TOTAL SCORES: 23

SUM UP 5 SCORES HERE 23/5

AVERAGE SCORES: 4.6

# Prompt 11: Mixed Prompting (Combination of 2 or More Prompting Types)

## Selected Question

**Healthcare Operations, Administration, Professionals:**

* What is the role of a physician assistant (PA), and how does it differ from that of a nurse practitioner (NP)?

**11.1 1: How do I get a referral to see a specialist?**

Prompt:

Analyze a Referrals to specialists are often required by health insurance plans. Can you explain how the referral process works, including when a referral is needed, how to request one, and what role a primary care physician plays in the process? Please provide a detailed, accurate, and easy-to-understand response suitable for someone seeking specialist care.

**11.1.2 What questions should I ask my doctor during a checkup?**

Prompt:

Analysis to Preparing questions for a doctor’s appointment can help ensure you get the most out of your checkup. Can you provide a list of important questions to ask your doctor during a routine checkup, including questions about test results, medications, and preventive care? Please provide a detailed, accurate, and easy-to-understand response suitable for someone preparing for a medical appointment.

**11.1.3: What's the difference between a primary care doctor and a specialist?**

Prompt:

Analyze a Primary care doctors and specialists play different roles in healthcare. Can you explain the key differences between a primary care doctor and a specialist, including their areas of focus, when to see each other, and how they work together? Please provide a detailed, accurate, and easy-to-understand response suitable for someone navigating the healthcare system.

**11.1.4 What's the difference between a doctor (MD) and a doctor of osteopathy (DO)?**

Prompt:

Analyze a Medical doctors (MDs) and osteopathy doctors (DOs) are both licensed physicians, but they have different training and approaches to care. Can you explain the key differences between an MD and a DO, including their education, philosophy, and scope of practice? Please provide a detailed, accurate, and easy-to-understand response suitable for someone considering their healthcare options.

**11.1.5 What is the difference between a psychiatrist and a psychologist?**

Prompt:

Analyzing a psychiatrists and psychologists both work in mental health, but they have different roles and approaches. Can you explain the key differences between a psychiatrist and a psychologist, including their education, treatment methods, and when to see each? Please provide a detailed, accurate, and easy-to-understand response suitable for someone seeking mental health care.

## Combined Prompting Techniques

* Open-Ended Prompting: Encourages a detailed explanation of the role of a physician assistant and how it differs from a nurse practitioner.
* Instruction-Based Prompting: Directs the AI to provide specific information about the scope of practice, education, and responsibilities of PAs and NPs.
* Example-Based Prompting: Uses the provided healthcare operations and administration questions as a reference for structuring the new question.

## Prompt: Initial Version

Analyze the role of a physician assistant (PA) in healthcare and how it differs from that of a nurse practitioner (NP). Provide a detailed and accurate response suitable for someone seeking medical career or patient care information.

## PROMPT: Final Version

Physician assistants (PAs) and nurse practitioners (NPs) both play important roles in healthcare. Can you explain what a PA does, how their role differs from that of an NP, and what their scope of practice includes? Please provide a detailed, accurate, and easy-to-understand response suitable for someone seeking a reliable medical career or patient care information.

A screenshot of a computer

AI-generated content may be incorrect.

## Response: Final Version

**Final Response:**

A physician assistant (PA) is a licensed medical professional who works under the supervision of a physician to provide a wide range of healthcare services. Here’s an overview of their role and how it differs from that of a nurse practitioner (NP):

Education and Training:

* PAs complete a master’s degree program in physician assistant studies, which includes classroom instruction and clinical rotations.
* NPs typically hold a Master of Science in Nursing (MSN) or a Doctor of Nursing Practice (DNP) degree, with advanced training in nursing theory and practice.

Scope of Practice:

* PAs practice medicine under the supervision of a physician and can diagnose and treat medical conditions, prescribe medications, and assist in surgeries.
* NPs have a more independent scope of practice in many states, allowing them to diagnose, treat, and prescribe without physician oversight.

Patient Care Approach:

* PAs often follow a medical model of care, focusing on diagnosing and treating diseases.
* NPs typically follow a nursing model, emphasizing holistic care, health promotion, and disease prevention.

Work Settings:

* PAs and NPs work in similar settings, including hospitals, clinics, and specialty practices. However, PAs are more commonly found in surgical and inpatient settings, while NPs often work in primary care and outpatient settings.

Collaboration:

* PAs collaborate closely with supervising physicians, while NPs often work independently or in collaboration with other healthcare providers.

Both PAs and NPs play critical roles in healthcare, and their collaboration ensures patients receive high-quality, accessible care.

## Response Analysis and Evaluation

### Questionnaire: Question 1: Usefulness and Relevance.

SCORE: 5/25

The response is highly useful and relevant, addressing the role of PAs and their differences from NPs in detail.

### Questionnaire: Question 2: Accuracy and Trustworthiness.

SCORE: 4/25

The information is accurate and trustworthy, aligning with established medical and nursing practices.

### Questionnaire: Question 3: Clarity, Coherence, and Understanding.

SCORE: 4/25

The response is clear and coherent, though some terms (e.g., medical model vs. nursing model) might require additional explanation for laypersons.

### Questionnaire: Question 4: Completeness and Depth.

SCORE: 4/25

Explanation: The response is complete and covers all major aspects of PAs and NPs, though it could briefly mention salary differences or patient satisfaction rates for added depth

### Questionnaire: Question 5: Overall Satisfaction and Further Assistance Needed.

SCORE: 5/25

Explanation: The response is highly satisfactory and provides sufficient information without requiring further assistance

## Prompt Response Evaluation Summary

--) 1: Question 1: Usefulness and Relevance: 5/25

--) 2: Question 2: Accuracy and Trustworthiness: 4/25

--) 3: Question 3: Clarity, Coherence, and Understanding: 4/25

--) 4: Question 4: Completeness and Depth: 4/25

--) 5: Question 5: Overall Satisfaction and Further Assistance Needed: 5/25

TOTAL SCORES: 22

SUM UP 5 SCORES HERE 22/5

AVERAGE SCORES: 4.4

**Thank You So Much**