Your AI Chatbot Assistant for Evidence-Based Chronic Back Pain Care





By avivly.nl

Guides in assessing and managing chronic low back pain based on evidence-based guidelines.

How does the pain affect my daily life and mood Should I see a physiotherapist? or maybe go to the h... What are your expectations and concerns regarding t... it feels like my hernia is back, but it is healed already ..

Message G-PT Charlie..

Your AI Chatbot Assistant for Evidence-Based Chronic Back Pain Care

PROBLEM

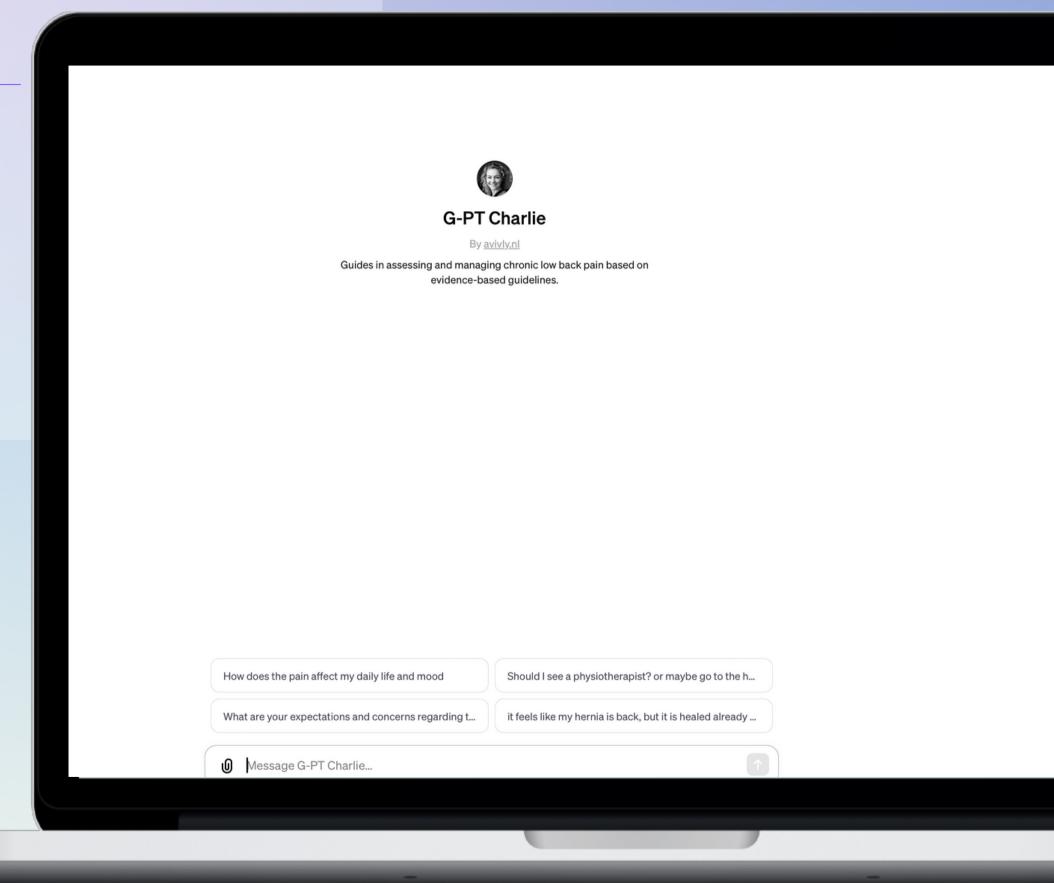
- Complexity of Chronic Back Pain Management
- Frequent Referrals Leading to Patient Frustration
- Underutilization of Clinical Decision-**Making Tools**



Your AI Chatbot Assistant for Evidence-Based Chronic Back Pain Care

WHERE COMPASSIONATE CARE MEETS AI **PRECISION**

- Real-Time EBP Integration
- **Conversational Health Analysis**
- **Seamless Referral Recommendations**
- **Tailored Care Suggestions**





Your AI Chatbot Assistant for Evidence-Based Chronic Back Pain Care

SOLUTION

- Real-Time EBP Integration
- **Conversational Health Analysis**
- **Seamless Referral Recommendations**
- Tailored Care Suggestions(only EBP)

- 3. Physical Activity and Exercises: Regular gentle exercises, especially those focusing on core strengthening and flexibility, can be beneficial for chronic low back pain. However, these should be tailored to your specific condition and tolerance.
- 4. Lifestyle Factors: Consider aspects like stress, sleep quality, and overall physical activity. These can play a role in chronic pain experiences.
- 5. Further Evaluation: Since physiotherapy hasn't been as effective as hoped, revisiting a healthcare professional might be necessary. They might consider other interventions or refer you to a specialist if needed.
- 6. Pain Management Education: Understanding how chronic pain works, as explained in my knowledge source on pain management, can be empowering. Knowing that pain doesn't always equate to ongoing harm and learning strategies to manage it can be part of the treatment.

Remember, managing chronic pain often requires a multifaceted approach, including physical, psychological, and lifestyle modifications.

Would you like more detailed guidance on specific exercises, ergonomic adjustments, or other strategies to manage your pain?

Can you please help me understand the pain so I could manage it in a better way?

PT Charlie

Absolutely, Tessa. Understanding the nature of your chronic pain is a crucial step in managing it effectively. Let's delve into a few key concepts based on my knowledge source on pain management:

1. The Nature of Chronic Pain:

. Difference from Acute Pain: Unlike acute pain, which is usually a direct response to injury or tissue damage, chronic pain can persist



Message PT Charlie...

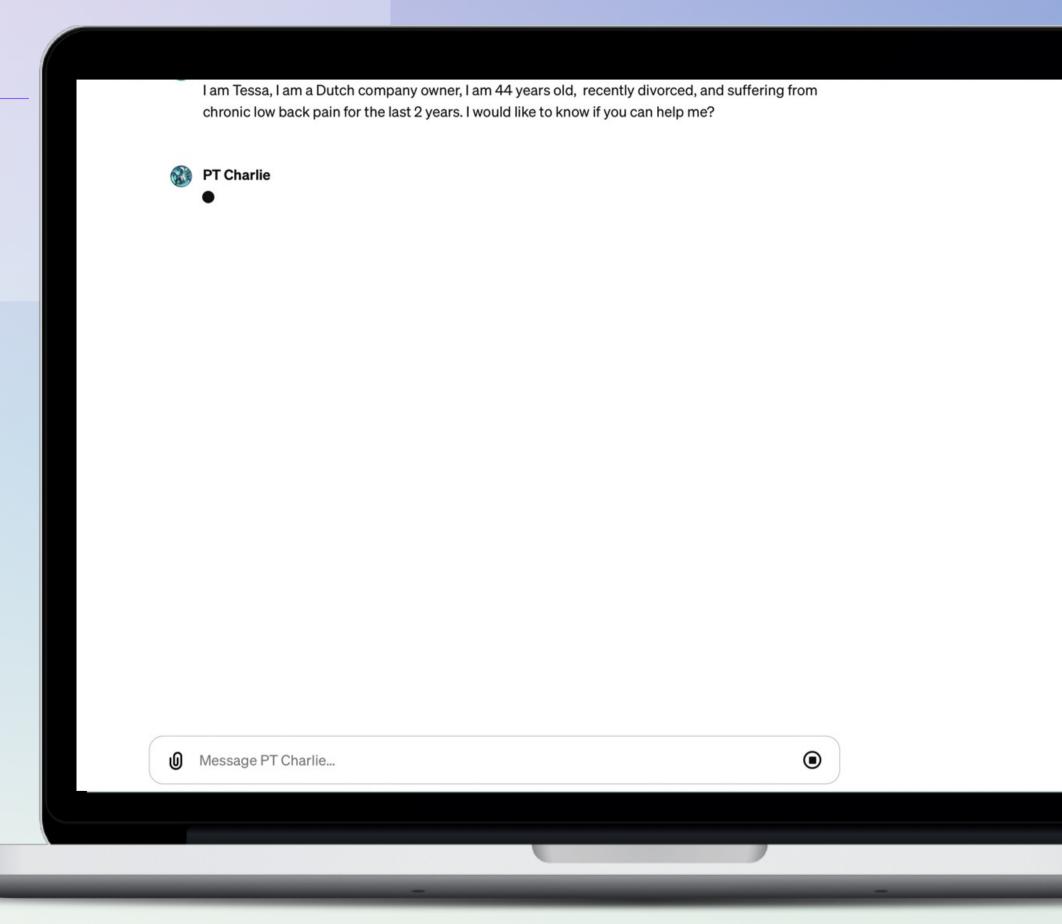




Your AI Chatbot Assistant for Evidence-Based Chronic Back Pain Care

USING PUBMED API

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Schema
 openapi: 3.0.0
   title: PT Charlie PubMed Interface
   description: API interface for PT Charlie to interact with PubMed for evidence-based practices in chronic
     management.
   version: 1.0.0
 servers:
   - url: https://api.pubmed.gov
     description: PubMed API for medical literature search
 paths:
   /literatureSearch:
      operationId: searchLiterature
       summary: Search PubMed for literature related to chronic low back pain.
       parameters:
        - name: querv
          in: query
           required: true
           description: Search query for PubMed literature, focused on chronic low back pain topics.
           schema:
            type: string
       responses:
           description: A list of relevant literature from DubMod
Available actions
                                                          Method
                                                          GET
searchLiterature
                                                                                  /literatureSearch
```



Your AI Chatbot Assistant for Evidence-Based Chronic Back Pain Care

HOW DOEST IT WORK

- Utilizes evidence-based practices (EBP) from sources like PubMed
- Analyzes patient data to create tailored treatment plans
- Identifies at-risk patients for early intervention and prevention
- Connects patients with appropriate healthcare providers
- Using clinical decision-making tool to provide the outcome

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"Smoking":0,
"Previous back surgery":1,
"Number_of_surgeries":2,
"Use of analgesics":0,
"Social_status":"Living together",
"Social_support":0,
"Employed":1,
"Work_satisfaction":1,
"Sick_leave":1,
"Duration_Back_pain":"1-2 years",
"Duration_Leg_pain":">2 years",
"Back_pain_intensity":9,
"Leg pain intensity":7,
"Comorbidities":"Other",
"Loss_of_neurological_function":0,
"Incontinence":0.
"Numbness_leg_foot":1,
"Loss_of_muscle_strength":1,
"Paresthesia_leg_foot":0,
"Anxiety":"Low",
"Somatization": "Strongly agree",
"Expectations_return_to_work": "Keep receiving disability pensions",
"Walking_distance":">1 km",
"Practice_sports":"No",
"Disability_in_leisure_activities":1,
"Bothersomeness":1,
"Pain_intensity_back":10,
"Pain_intensity_leg":3,
"Distress": "High",
"Coping": "Poor",
"Functioning daily activities": "Moderate",
"Physical functioning": "Moderate"
```

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PERSONALISED ERGONOMICS ADVICE

- Chair adjustments
- **Desk Height Setup**
- **Monitor Position**
- **Visuals**





Here is a visual representation of an ergonomic office workstation setup tailored to your needs.

This setup includes key elements such as:

- The 27-inch Mac monitor placed at eye level, possibly elevated on a stand or books.
- A chair with added lumbar support cushion.
- The user's feet are flat on the floor or on a footrest, with knees at hip level.
- Forearms are parallel to the floor while typing, with the keyboard and mouse within easy reach.
- Relaxed shoulder posture with elbows close to the body at about a 90-degree angle.
- Proper lighting to reduce glare on the monitor.
- Optional ergonomic accessories like a wrist rest for the keyboard and mouse.

This visual guide should help you adjust your workstation to be more ergonomic and comfortable, especially for managing your back pain.



That is great! thank you! now I would like to have in a table an s





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FRONTEND INTERACTION

Patient-Centric Approach for Comfort and **Engagement**

- Conversational AI fosters empathy and trust through natural dialogue
- Personalized interactions greet patients by name and tailor discussions
- Engaging experience makes CLBP management more enjoyable

can be beneficial. Given your busy schedule, even short periods of these activities can be helpful.

- 3. Physical Activity: While it's great that you're doing light walking, incorporating gentle stretching or low-impact exercises like yoga or swimming might provide additional relief. These activities not only help in reducing pain but also improve overall well-being.
- 4. Social Support: Having a good friend is valuable, especially during challenging times. Consider spending quality time with your friend or joining support groups where you can connect with others experiencing similar issues. This can provide emotional relief and practical advice.
- 5. Professional Guidance: If you haven't already, consulting with a physiotherapist could be beneficial. They can provide personalized exercises and guidance tailored to your condition and lifestyle.

Remember, managing chronic pain is often about balancing various aspects of life. Making small adjustments in your daily routine and seeking support when needed can lead to significant improvements in your pain and overall quality of life. Please feel comfortable to share any other concerns or questions you might have.

Being divorce and with the stress of work sometimes the pain feel like it is always, there, I would like to know as well if I need to see the surgeon? Or maybe for disc hernia, or someone to help me with the pain

PT Charlie

Tessa, it's understandable that you're concerned about the possibility of a disc herniation, especially given the persistent nature of your pain and the stress you're experiencing. Based on the information you've

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PERSONALIZED DOWNLOADABLE **EXERCISE PLAN**

- A weekly schedule
- Downable in PDF/CSV Format
- Visuals are provided too!

This visual guide should help you adjust your workstation to be more ergonomic and comfortable, especially for managing your back pain



That is great! thank you! now I would like to have in a table an simple exercises that I can do at home or even at my work station, can you create that? please make it for every 1.5hours during my work, and from Mon-Fri



Absolutely, Tessa! Here's a simple exercise schedule you can follow at your workstation, designed to be done every 1.5 hours during your workday, from Monday to Friday. These exercises are intended to reduce strain and improve flexibility, particularly beneficial for managing back pain.

Exercise Schedule for Work (Monday to Friday)

Every 1.5 Hours:

1. Neck Stretch:

- Gently tilt your head towards each shoulder, holding for 10-15 seconds on each side.
- · Rotate your head slowly from side to side.

2. Shoulder Shrugs and Rolls:

- · Lift your shoulders up towards your ears, hold for 5 seconds, and relax.
- Roll your shoulders forward and backward in a circular motion.

3. Wrist and Hand Stretches:

- Extend your arm, palm up, and gently pull back on your fingers.
- Make a fist and then fan out your fingers, stretching them wide.

4. Torso Twist:

- Sit up straight and gently twist your torso to each side, holding for 10-15 seconds.
- Keep your feet

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PERSONALIZED DOWNLOADABLE **EXERCISE PLAN**

- A weekly schedule
- Downable in PDF/CSV Format

Visuals are provided too!

- If any exercise causes discomfort, modify it or skip it.
- Consistency is important for the best results.

This routine is designed to be easily integrated into your workday, helping to reduce stiffness and maintain flexibility. It's also a good way to take a mental break and refresh yourself during long work hours. Would you like any further information or modifications to these exercises?

Great! I would like to have it in a file that can be downloaded with sets reps, breaks in between, is

PT Charlie

I've created a PDF file containing the workstation exercise schedule for back pain relief. This schedule includes descriptions, sets, reps, and breaks for each exercise, tailored for your workday routine from Monday to Friday.

You can download the file using the following link:

Download Workstation Exercise Schedule

Feel free to refer to this schedule during your workday to help manage and alleviate your back pain. Let me know if there's anything else I can assist you with! [>-]

Thank you! now maybe you can also provide the visuals of those exercises? so I can have a bit of an example? next to the file

PT Charlie

Creating images

Message PT Charlie...

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PERSONALISED ERGONOMICS ADVICE

- Chair adjustments
- **Desk Height Setup**
- **Monitor Position**
- **Visuals**

• Height: The top of the screen should be at or slightly below eye level. You might need to elevate the monitor if it's too low. Books or a sturdy stand can be used for this purpose.

4. Posture and Movement:

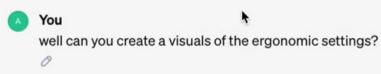
- Posture: Try to maintain a good posture with your back straight, shoulders back, and chin tucked in slightly.
- Movement: Incorporate regular movement into your routine. Stand, stretch, or walk briefly every 30 minutes.

5. Other Considerations:

- Footrest: If your feet don't comfortably reach the floor, consider using a footrest.
- Lighting: Ensure adequate lighting to reduce eye strain. Avoid glare on the screen from windows or lights.
- · Peripheral Accessories: Consider ergonomic accessories like a wrist rest for the keyboard and mouse, especially if you experience discomfort in your wrists or hands.

Remember, the goal of these adjustments is to maintain a neutral, comfortable posture and reduce strain on your body, especially your back. If back pain persists despite these ergonomic changes, it's important to seek further medical advice, as there may be other underlying factors contributing to your pain.

Would you like any more detailed information on any of these points?





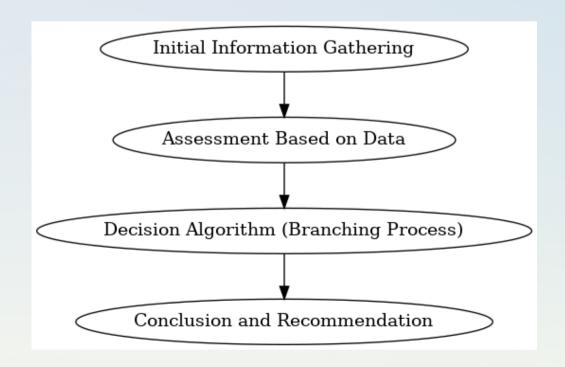




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FINDING YOUR RIGHT CARE

USING PATIENT SYNTHETIC DATA FROM THE KNOWLEDGE BASE



- system' (your nervous system) has become overly sensitive. Pain Memory: It's like a song that gets stuck in your head. Sometimes, your body 'remembers' pain even when the original cause is no longer present. Activities or emotions associated with past pain can trigger a similar sensation. 4. Pain and Stress: Stress, like from your work or divorce, can actually increase the body's sensitivity to pain. It's a bit like turning up the contrast on a TV - everything, including pain, can seem more intense.
- approach, which may include physical therapy, stress management, and lifestyle modifications. Understanding that chronic pain is not just a symptom, but a condition in its own right, can be empowering. It highlights the importance of a comprehensive approach to management, which addresses not just the physical aspect of pain, but also the emotional and psychological

normal. It's a real and complex condition that can often be managed effectively with the right

5. Is It Normal?: While chronic pain is common, it's not something you have to accept as your

- components. Remember, managing chronic pain is often a journey, and it's okay to seek help and explore different strategies to improve your quality of life.
- Thank you very much Charlie! now I am living currently in UTRECHT OOST, do you any advice on support or a clinic that can help me in that area? maybe also with a physiotherapists? just in case I will need it? but mostly about help with the chronic pain? and some support
- PT Charlie Visiting www.dcklinieken.nl
- Message PT Charlie..