

# AI-03962 Flu-like Recovery Process

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☰ Tags	Project
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Make this prompt better:

Create an n8n type workflow of a human being journey to recovery from flu-like symptoms back to 100% health. Explain the physiological process

Here's a more detailed and structured version of your prompt:

## Prompt:

Create a comprehensive **n8n-style workflow diagram** that models the complete journey of a human being recovering from **flu-like symptoms** and returning to **100% health**.

The workflow should follow the process from **initial exposure to a virus** through **full physiological recovery**, using n8n concepts such as triggers, decision nodes, conditions, loops, parallel processes, and status checkpoints.

## Requirements

### 1. Timeline Phases

Include the following stages:

#### 1. Exposure & Infection

- Viral entry (nose, mouth, eyes)
- Incubation period
- Viral replication

#### 2. Early Immune Detection

- Innate immune system activation
- Cytokine release
- Inflammatory response
- Fever initiation

#### 3. Symptom Development

- Fatigue
- Chills

- Sore throat
- Nasal congestion
- Cough
- Headache
- Muscle aches
- Reduced appetite

#### **4. Decision Nodes**

- Rest vs continue normal activities
- Adequate hydration?
- Adequate nutrition?
- Medical intervention required?
- Secondary infection present?

#### **5. Immune System Battle**

- White blood cell recruitment
- Natural killer cell activity
- T-cell activation
- B-cell activation
- Antibody production
- Viral load reduction

#### **6. Recovery Phase**

- Fever resolution
- Reduced inflammation
- Tissue repair
- Mucosal healing
- Energy restoration
- Improved sleep quality

#### **7. Post-Viral Recovery**

- Strength rebuilding
- Cardiovascular recovery
- Cognitive recovery ("brain fog" resolution)

- Return to exercise
- Return to work
- Return to normal daily activities

**8. Full Recovery**

- Baseline energy restored
- Immune memory established
- Normal sleep patterns
- Normal appetite
- Full physical and mental performance

**Physiological Deep Dive**

For each workflow node, explain:

- What is happening biologically?
- Which organs and body systems are involved?
- Which immune cells are active?
- Which hormones, cytokines, and signaling molecules are involved?
- Why symptoms occur at that stage?
- What factors accelerate recovery?
- What factors delay recovery?

**n8n Workflow Format**

For each node provide:

Node ID	Workflow Step	Trigger/Input	Biological Process	Decision Criteria	Output
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Use:

- Trigger Nodes
- IF/ELSE Nodes
- Merge Nodes
- Wait Nodes
- Loop Nodes
- Parallel Process Nodes
- Success Nodes

- Error/Complication Nodes

### **Recovery Dashboard**

Include a health status tracker showing:

- Viral Load (%)
- Inflammation Level (%)
- Energy Level (%)
- Hydration Status (%)
- Sleep Quality (%)
- Immune Response Strength (%)
- Symptom Severity (%)
- Recovery Progress (%)

Display changes from:

**Day 0 → Day 3 → Day 7 → Day 14 → Day 21 → Full Recovery**

### **Final Deliverable**

Produce:

1. A visual n8n-style workflow map.
2. A detailed physiological explanation of each node.
3. A timeline of recovery milestones.
4. Common recovery bottlenecks and complications.
5. An "Optimal Recovery Path" showing the fastest route from infection to full health.
6. A "Poor Recovery Path" showing how inadequate rest, hydration, sleep, or nutrition can delay healing.

The output should be detailed enough that a healthcare professional, biology student, or systems engineer could understand the recovery process as a complete biological workflow from infection to full recovery.

Here is an optimized, hyper-structured version of your prompt. It translates your original idea into a highly detailed specification that forces an AI to act like a systems architect, a medical doctor, and a data analyst all at once.

By adding specific formatting parameters, clinical requirements, and logic constraints, this prompt ensures you get a deeply analytical, production-grade output instead of a generic summary.

## # Role & Objective

Act as an expert Systems Architect specializing in n8n automation and a Clinical Pathophysiologist. Create a comprehensive, production-grade n8n-style workflow diagram and technical blueprint that models the complete physiological journey of a human recovering from influenza-like illness (ILI) back to 100% homeostatic baseline health.

The workflow must treat the human body as an integrated biological machine, utilizing precise n8n architectural concepts (Triggers, Conditional Switch Nodes, Merge Nodes, Wait/Polling Loops, Parallel Process Executions, Error/Complication Handling, and Success/Termination States).

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## # 1. Architectural Blueprint: The n8n Workflow Table

Map the entire biological recovery process using a structured Markdown table. Every node must represent a distinct biological milestone or clinical decision. Use the following schema:

- \* **Node ID:** (e.g., TRG\_01, IF\_02, PAR\_03, WAIT\_04, MRG\_05)
- \* **Node Type:** (Trigger, IF/Node, Switch, Parallel, Wait, Merge, Loop, Success, Error)
- \* **Node Name:** Descriptive clinical/n8n title.
- \* **Input Data (JSON Payload):** The biological telemetry passing into the node (e.g., `{"viral_load": 85, "cytokine_levels": "high", "core_temp_c": 38.9}`).
- \* **Biological Logic & Decision Criteria:** The exact parameters/conditions evaluating the payload.
- \* **Output Data (JSON Payload):** The updated physiological state routing to the next node.

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## # 2. Sequential Workflow Phases

The workflow must chronologically execute through these 8 distinct phases, containing the specific biological sub-processes:

1. **Exposure & Infiltration (Trigger Phase):** Viral entry via mucosal membranes (nasopharyngeal/conjunctival), incubation loops, and intracellular viral replication.
2. **Early Immune Detection:** Activation of the innate immune system

(PAMP recognition via TLRs), acute cytokine release (IL-1, IL-6, TNF- $\alpha$ ), systemic inflammatory cascade, and hypothalamus-mediated fever initiation.

3. **Symptom Proliferation (Parallel Processing):** Branch the workflow into parallel streams executing concurrent systemic symptoms: profound fatigue, chills/rigors, pharyngitis, nasal congestion, dry/productive cough, cephalalgia, myalgia, and anorexia (appetite suppression).

4. **Clinical Decision & Intervention Nodes:** Implement conditional routing (IF/ELSE) evaluating patient behavior: Is rest adequate? Is hydration status optimal (>3L/day)? Is nutritional intake supporting gluconeogenesis? Is medical/antiviral intervention required? Is a secondary bacterial infection detected?

5. **The Adaptive Immune Battle:** Recruitment of leukocytes, Natural Killer (NK) cell cytotoxicity, antigen presentation via dendritic cells, T-cell activation (CD4+/CD8+), B-cell clonal expansion, neutralizing antibody production, and subsequent viral clearance.

6. **Resolution & Tissue Recovery:** De-escalation of the inflammatory cascade, resolution of pyrexia (fever breaking), cellular tissue repair, mucosal epithelial healing, ATP/glycogen store replenishment, and stabilization of sleep architecture.

7. **Post-Viral Consolidation (The Recovery Loop):** A continuous loop monitoring the clearing of "brain fog" (neuroinflammation), cardiovascular/exercise tolerance rehabilitation, muscle mass rebuilding, and structured titration back to occupational and physical workloads.

8. **Homeostatic Standard (Success State):** Restoration of baseline metabolic energy, establishment of long-term adaptive memory (T/B memory cells), normalization of circadian rhythms, and 100% physical/cognitive performance capacity.

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### # 3. Pathophysiological Deep Dive

For each major phase outlined above, provide an exhaustive clinical breakdown detailing:

\* **Cellular & Molecular Biology:** The exact immune cell phenotypes active (e.g., Macrophages, Neutrophils, Naive vs. Effector T-cells) and their corresponding signaling molecules (Interferons Type I/III, Chemokines).

\* **Organ System Involvement:** How the respiratory, nervous, musculoskeletal, and gastrointestinal systems interact.

\* **Symptom Causation:** The precise biological *why* behind symptoms

(e.g., explaining that myalgia is caused by cytokine-induced muscle proteolysis, not the virus directly).

\* **Kinetic Rate Limits:** Specific physiological factors that accelerate recovery vs. triggers that stall progress or induce a "Complication/Error" state (e.g., premature exertion inducing a viral relapse or post-viral fatigue syndrome).

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#### # 4. Patient Telemetry Dashboard (Data Visualization)

Construct a comprehensive health status tracking dashboard tracking the patient's vitals across a 6-point timeline: **Day 0 (Infection), Day 3 (Peak Symptoms), Day 7 (Adaptive Shift), Day 14 (Convalescence), Day 21 (Post-Viral Phase), and Full Recovery.**

Represent this data using a clean Markdown table tracking the following metrics on a percentage scale (0-100%):

- \* Viral Load (%)
- \* Systemic Inflammation Level (%)
- \* Cellular Energy Availability (ATP) (%)
- \* Hydration Index (%)
- \* Sleep Efficiency Index (%)
- \* Adaptive Immune Response Strength (%)
- \* Clinical Symptom Severity (%)
- \* Total Recovery Progress (%)

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#### # 5. Route Analysis: Optimal vs. Complicated Paths

Conclude with a comparative analysis mapping two distinct execution traces through your workflow:

1. **The Optimal Path (Happy Path):** The fastest, most efficient algorithmic routing to 100% health, highlighting the exact node choices (e.g., immediate rest, optimal hydration) that prevent the workflow from hitting error loops.
2. **The Poor Recovery Path (Error-Looping Path):** A breakdown of how specific failures at decision nodes (e.g., exercising with a fever, sleep deprivation, nutritional deficits) trigger workflow loops, secondary bacterial infection sub-workflows, or prolonged post-viral syndromic states.

## Why this prompt works significantly better:

- **Establishes Clear Personas:** By asking the AI to act as both a **Systems Architect** and a **Clinical Pathophysiologist**, it bridges the gap between clean logic structures (n8n) and accurate science.
- **Forces Structured Formats:** Demanding Markdown tables with **JSON Payload Inputs/Outputs** prevents the AI from giving lazy, text-heavy paragraphs and forces it to map the data exactly like an n8n engineer would see it on their screen (mirroring visual architectures like the reference diagram 8321721176189510001.jpeg).
- **Prevents Surface-Level Answers:** It asks for the specific molecular *why* behind symptoms (e.g., *why* muscles ache during a flu), which ensures the medical information provided is deeply educational and scientifically sound.