**ABSTRACT**

The Allyane process is a neuro-muscular reprogramming method based on neuro-scientific and clinical evidence. Its principle is to strongly activate the afferent way of the rereticulated formation, responsible of the voluntary motor learning (1, 2). Developed 13 years ago by AT for tennis players, this method is used by health professionals since 3 years. Its 3 phases: screening; retraining; reprogramming. It uses mental skill imagery, affective proprioceptive informations (sensitives, kinesthetics, intentions, feelings...) and low frequencies sounds (LFS).

At the Malandain Ballet Biarritz we use it in case of overuse Injuries (OI) and functional pathologies. Used after a global functional movement analysis, it enables to treat motor inhibitions (MI) and to speed up the return on stage (ROS).

The novelty of this process is its weakness and there is a lack of scientific studies on it. This presentation is also a way to interest searchers and students on an innovating subject.

**PURPOSE**

Our objectives are to:To treat those pains durably we have to change the pathogenic RPM. This is the goal of neuromuscular reprogramming methods (NMRRM). An Allyane treatment is 2h long. Normally, a single session is enough.

**LOW FREQUENCIES SOUNDS**

The low frequencies sounds effects on human brain are known and still applied in many specialties (10). Some memorization studies assisted with LFS describes the increase of the alertness level of the subject and sensory processing of the input information.

There are two different kinds of LFS into the Allyane process. Pulsed sounds modify his state of consciousness (alpha mode), stimulating the perception of the subject (8). Associated sound activate the the reticulared formation, responsible of the voluntary motor learning (2).

**WHEN CAN WE USE THE ALLYANE PROCESS?**

Patologic motion, joint instability, motor inhibition, wounds sequel.

**WHEN SHOULD NOT WE USE IT?**

Osteo articular structural dysfunction, acute tissue inflammation, traumaism.

### Example of a chronic ankle instability treatment

<table>
<thead>
<tr>
<th>Screening</th>
<th>Pathogenic RMP imaging</th>
<th>Corrected RMP imaging</th>
<th>Erase</th>
<th>Reprogramming</th>
<th>Test</th>
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</thead>
<tbody>
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<td>Quantitative</td>
<td>plantar metatarsus</td>
<td>valgus</td>
<td>knee</td>
<td>medial (</td>
<td>foot, ankle, knee</td>
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### Conclusion

The Allyane process is a innovative neuromuscular reprogramming method with a rigorous protocol using mental imagery, proprioceptive afferent informations and low frequency sounds. Its originality is:

- an objective to change the motor pattern into a RMP.
- an erase phase of the pathogenic RMP.
- the aid of LFS to increase the alertness and learning level of the dancer.

We are actually working on the chronic ankle instability study, it could be a first step to evaluate scientifically the results of the Allyane process. There is a debate on low frequency transcranial electromagnetic stimulations for helping learning a motor skill (22). Maybe the question is more on the process of reprogramming and not on the M1 (23).

But we absolutely need scientist invest on our neuro reprogramming work, first to better understand it and then to improve it.