



# WEBINAR

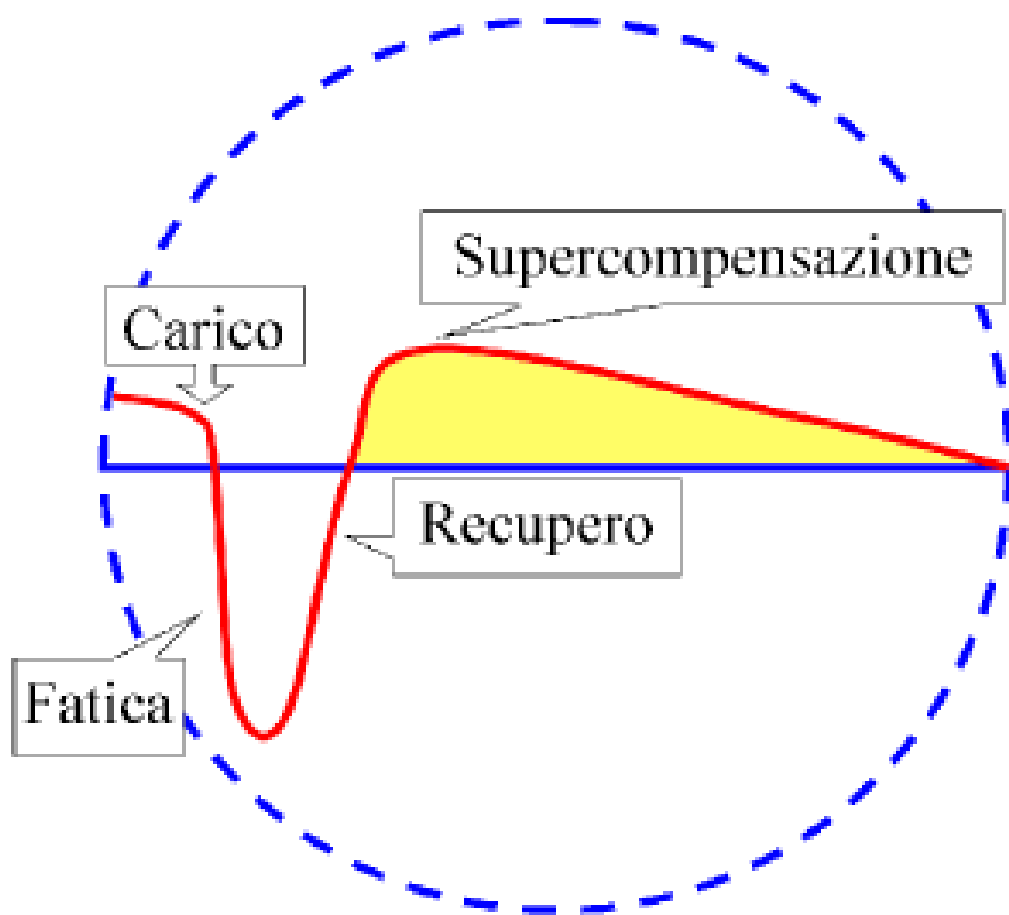
Federazione Italiana Pallavolo

**Fisiologia applicata allo sport  
-Fisiologia e Pallavolo-**

**Prof. Alberto Di Mario**  
([a.dimario@fastwebnet.it](mailto:a.dimario@fastwebnet.it))



La  
Supercompensazione

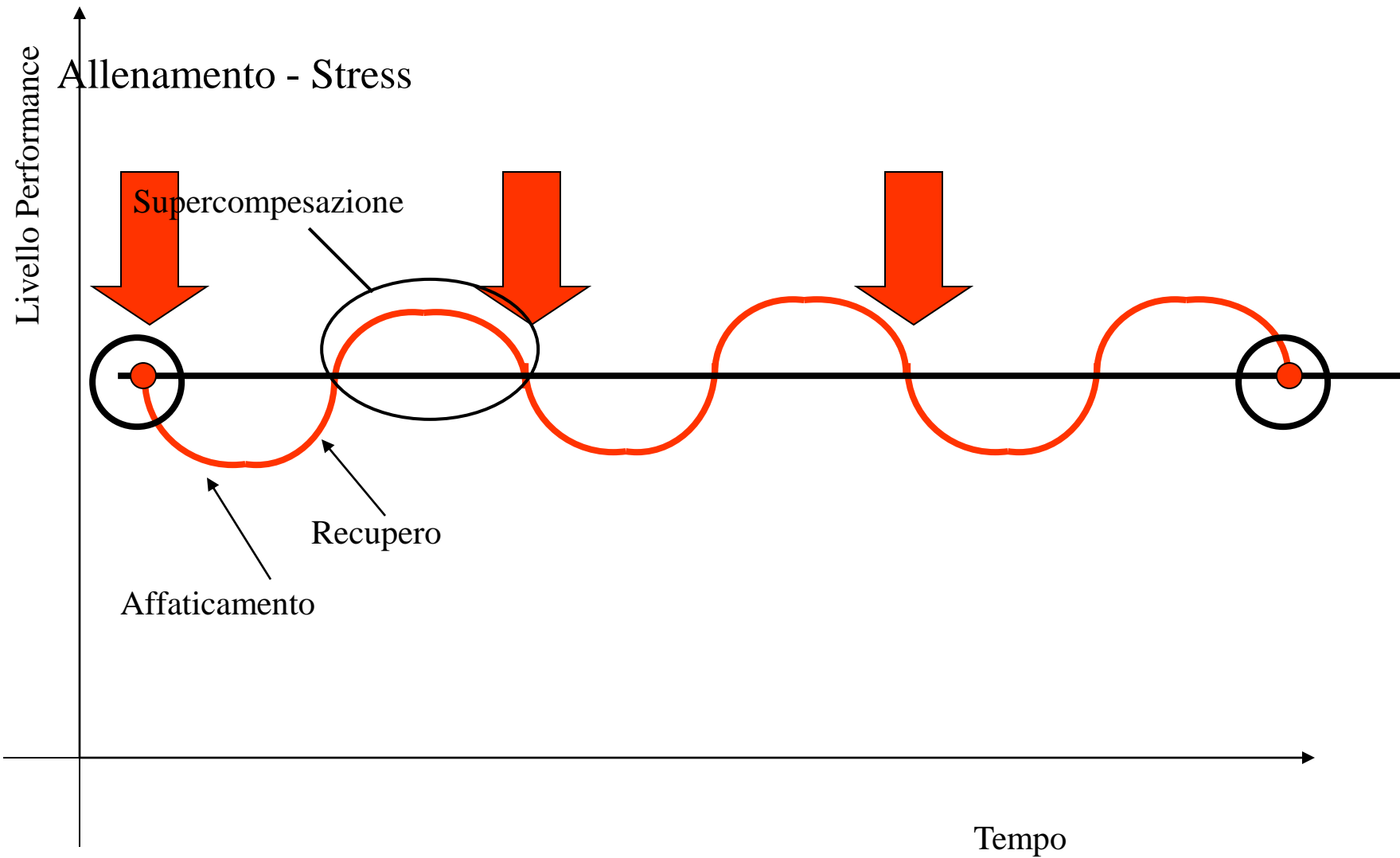


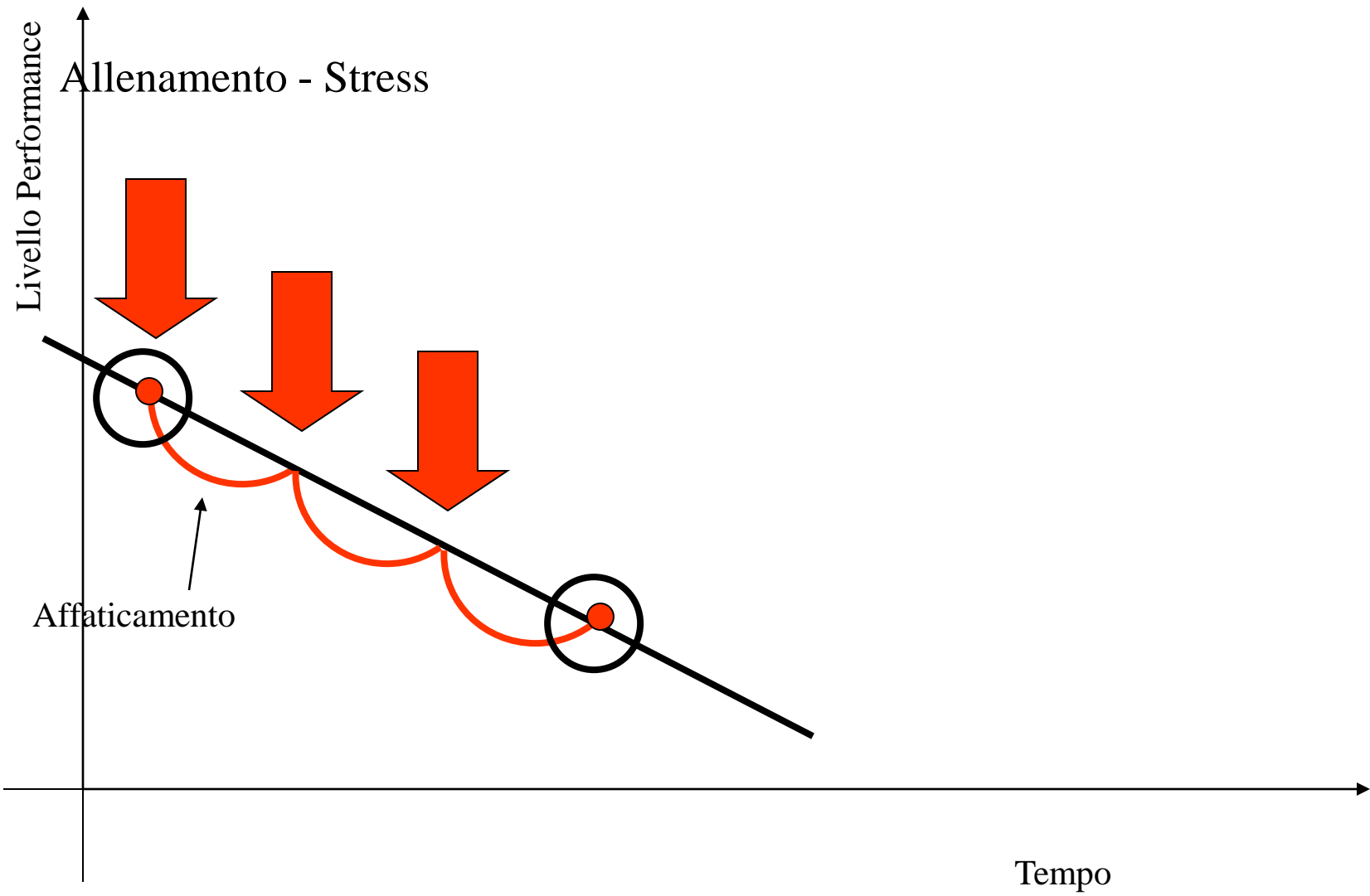
Carico

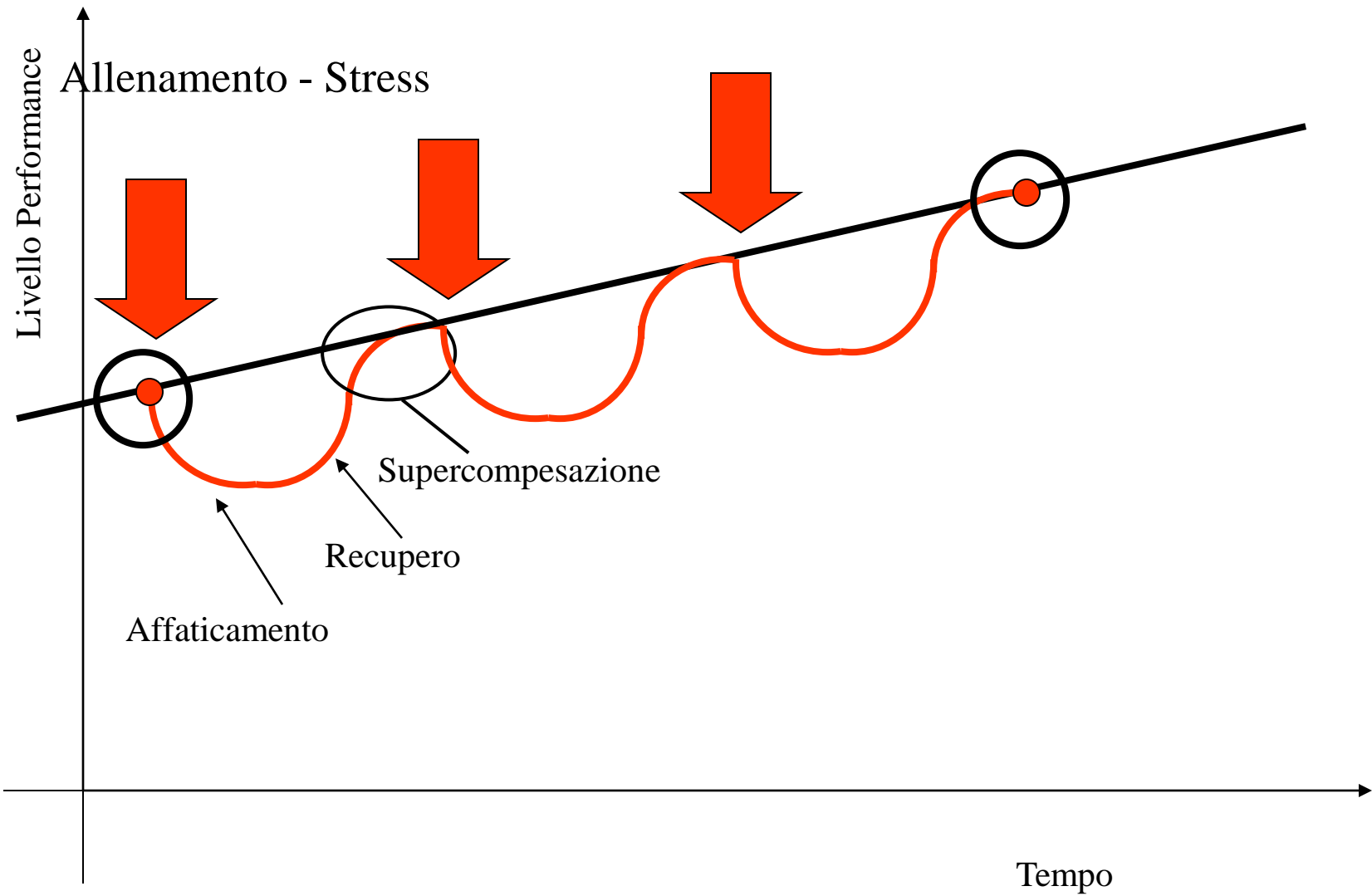
Supercompensazione

Recupero

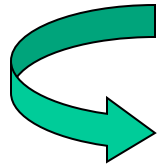
Fatica



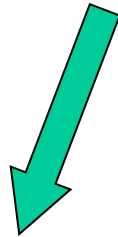




# STIMOLO ALLENANTE



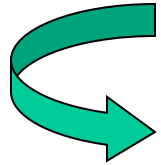
Obiettivo dell'allenamento



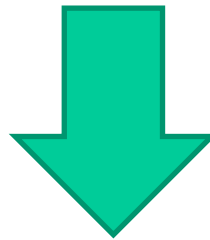
Neuromuscolare

Metabolico

# STIMOLO ALLENANTE

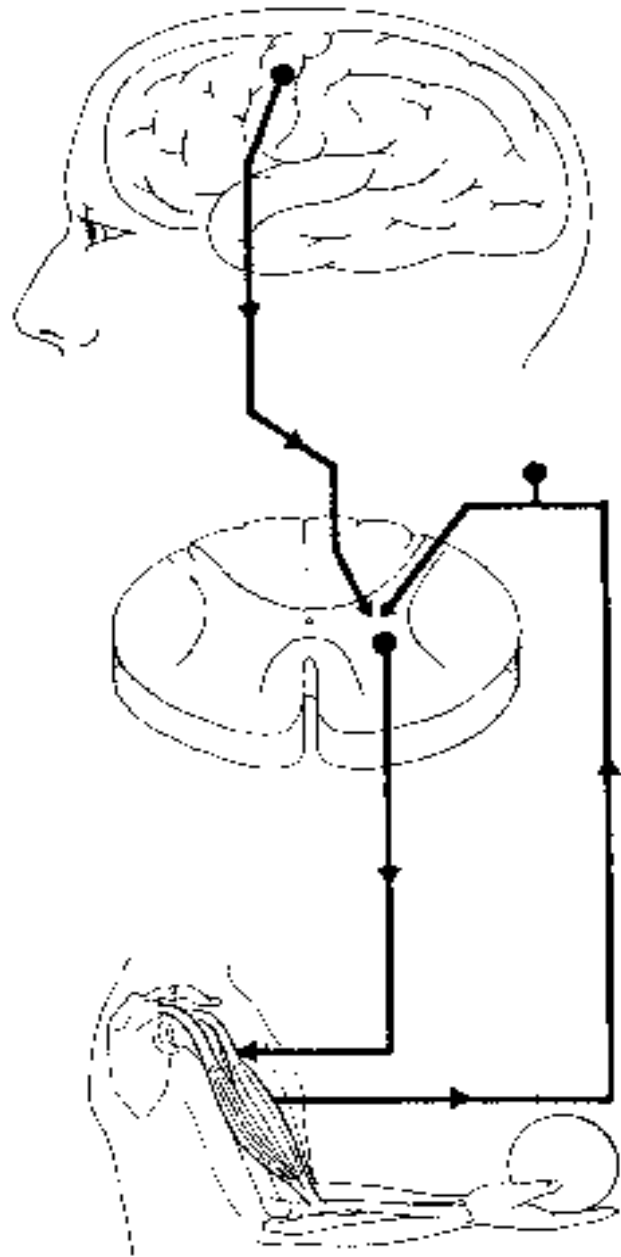


Obiettivo dell'allenamento



Neuromuscolare

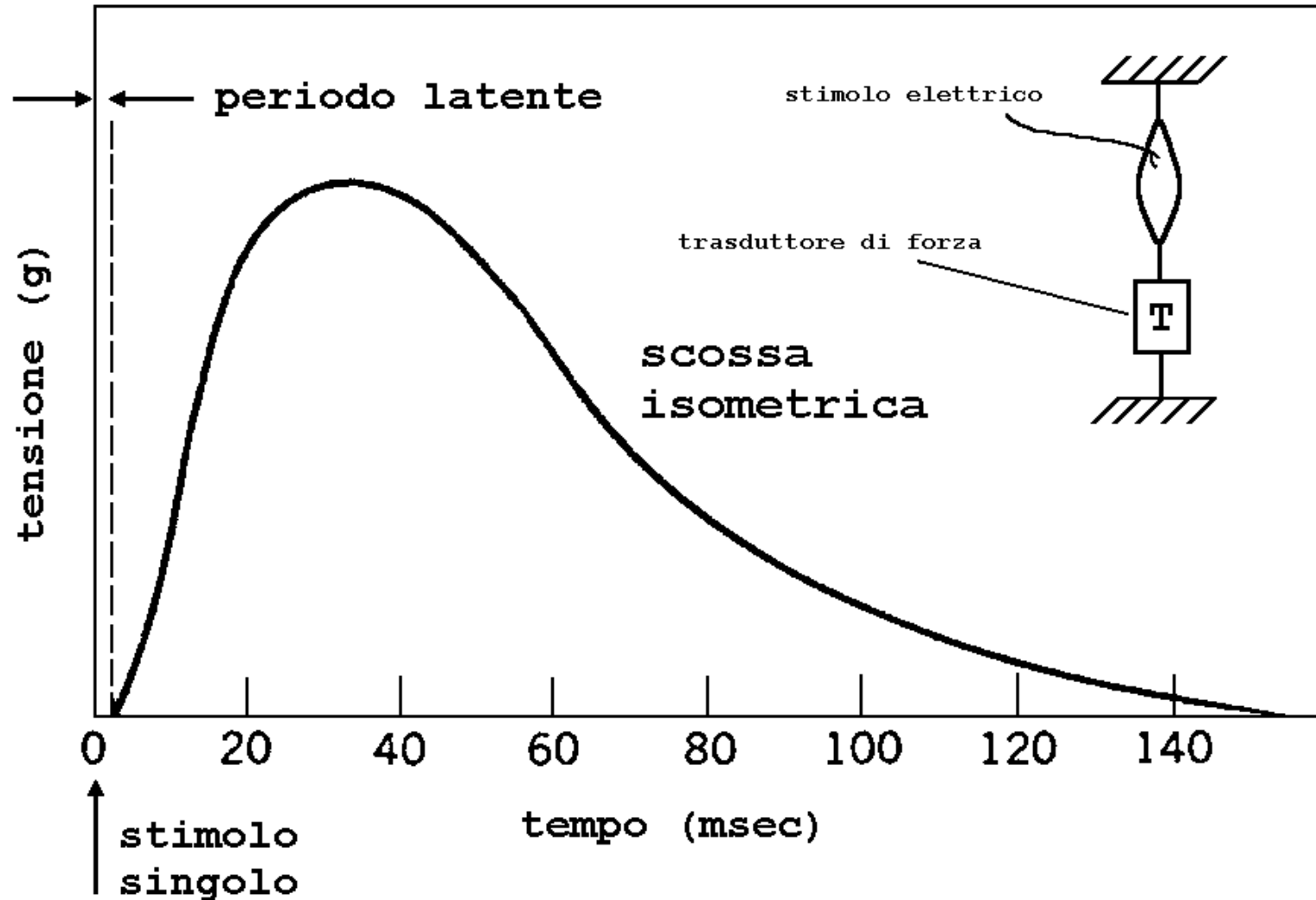




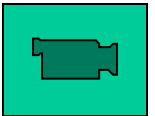
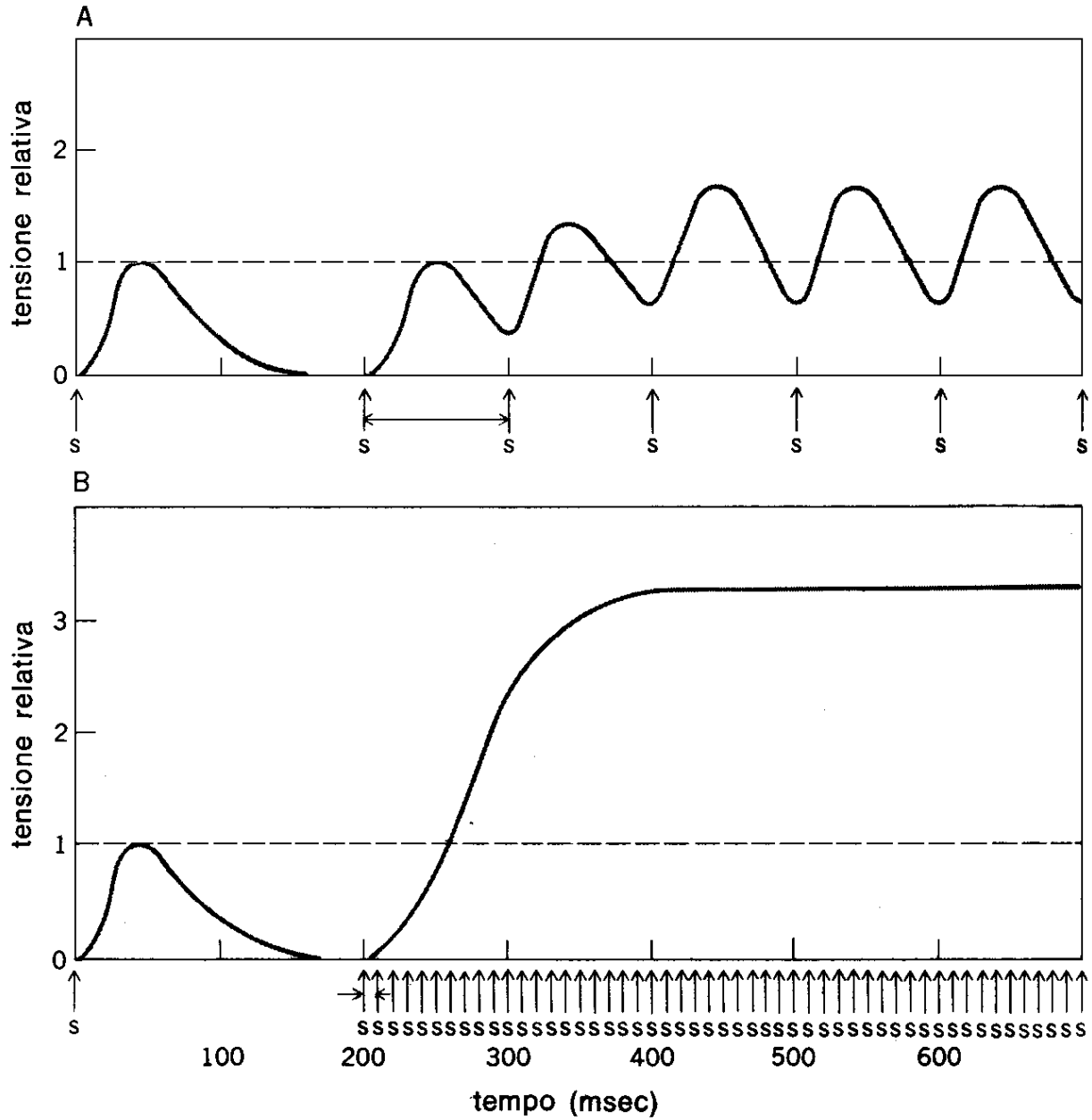
**S.N.C.**

**Sezione trasversa del muscolo**

# La Scossa singola



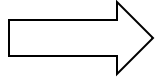
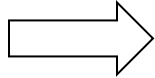
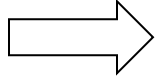
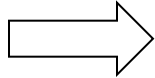
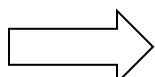
# Sommazione e Tetano



# LE FIBRE MUSCOLARI SCHELETRICHE

Le unità motorie toniche sono costituite da **FIBRE LENTE**

(rosse, ST, slow twitch)

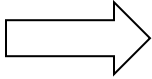
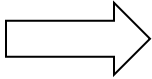

- Caratteristiche:**  elevata capacità di resistenza alla fatica
-  contrazioni con bassi picchi di tensione
-  lungo tempo di contrazione
-  Sono le più piccole
-  reagiscono a stimoli non molto elevati.

N.B.:Il numero delle miofibrille che appartengono alle unità motorie toniche è di gran lunga superiore di quelle delle unità fasiche.

# LE FIBRE MUSCOLARI SCHELETRICHE

Le unità motorie fasiche sono costituite da **FIBRE VELOCI**

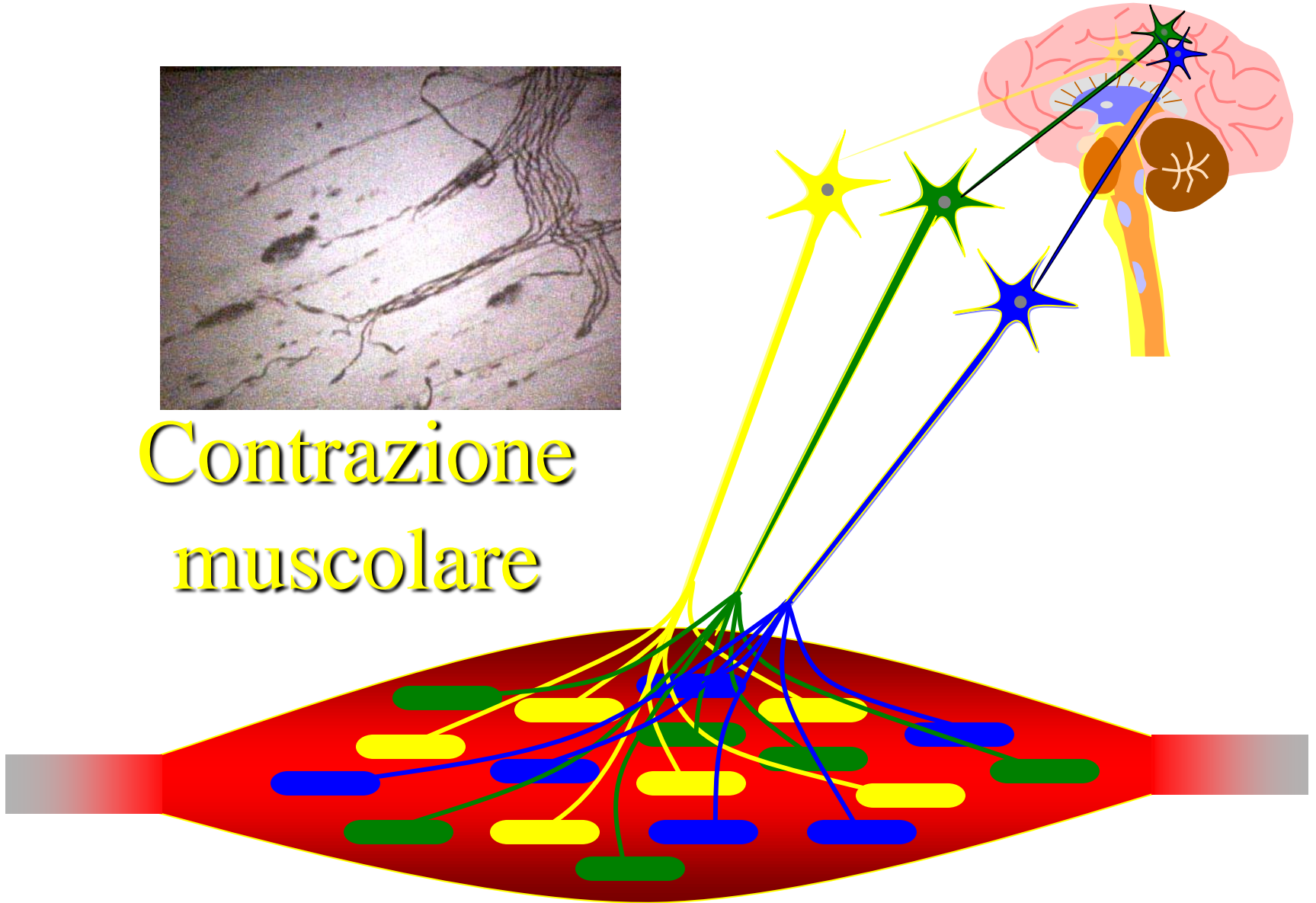
(bianche, FT o FTb, fast twich)

- Caratteristiche:**  esauriscono la loro capacità in breve tempo
-  contrazioni con altissimi picchi di tensione
-  breve tempo di contrazione
-  Sono le più grandi

Le **FIBRE INTERMEDIE** (FTR o Fta), che posseggono caratteristiche che si livellano tra FT e ST.

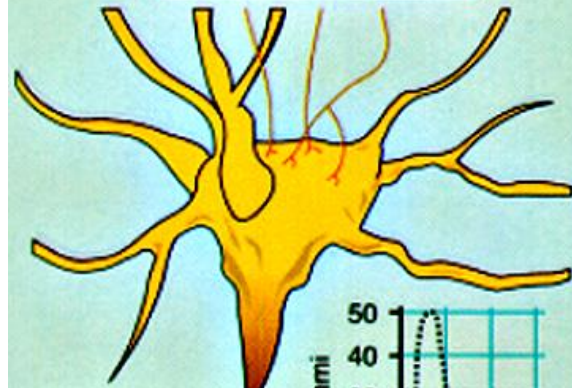


Contrazione  
muscolare

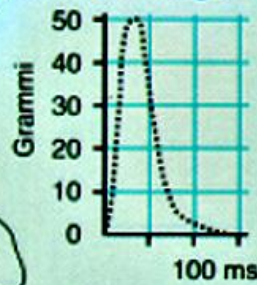




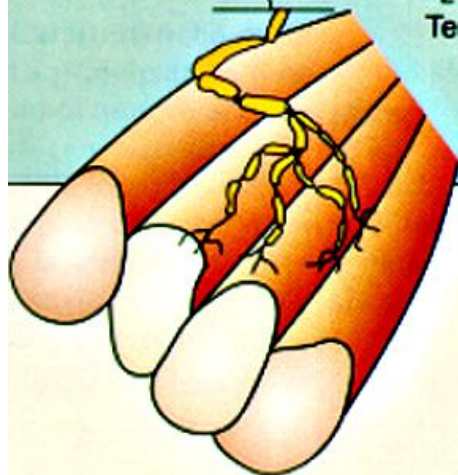
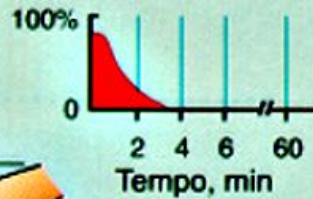
- Fibra rapida
- Forza elevata
- Elevata affaticabilità



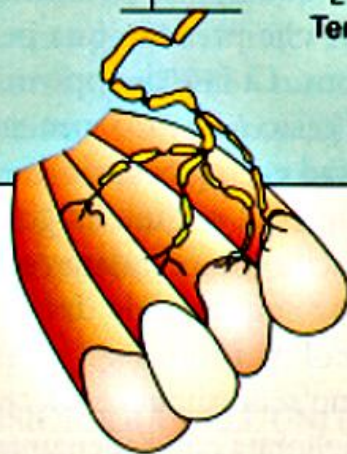
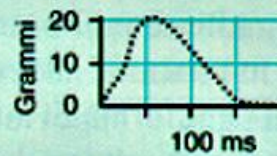
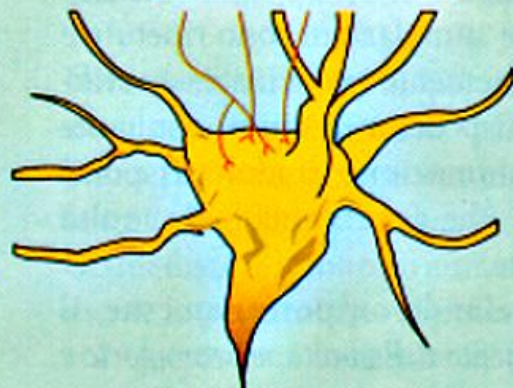
Scossa singola



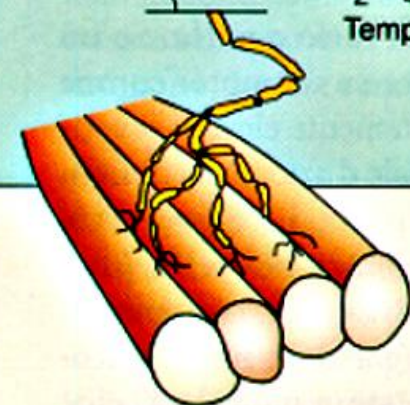
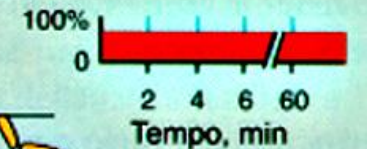
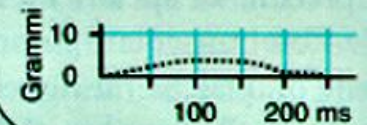
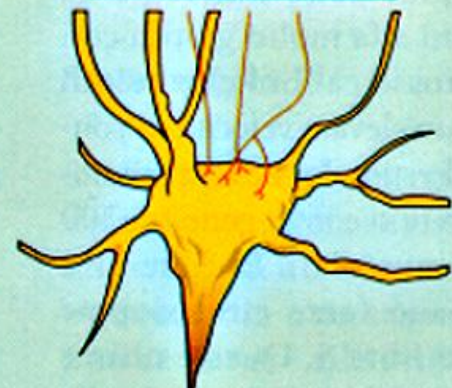
Affaticamento

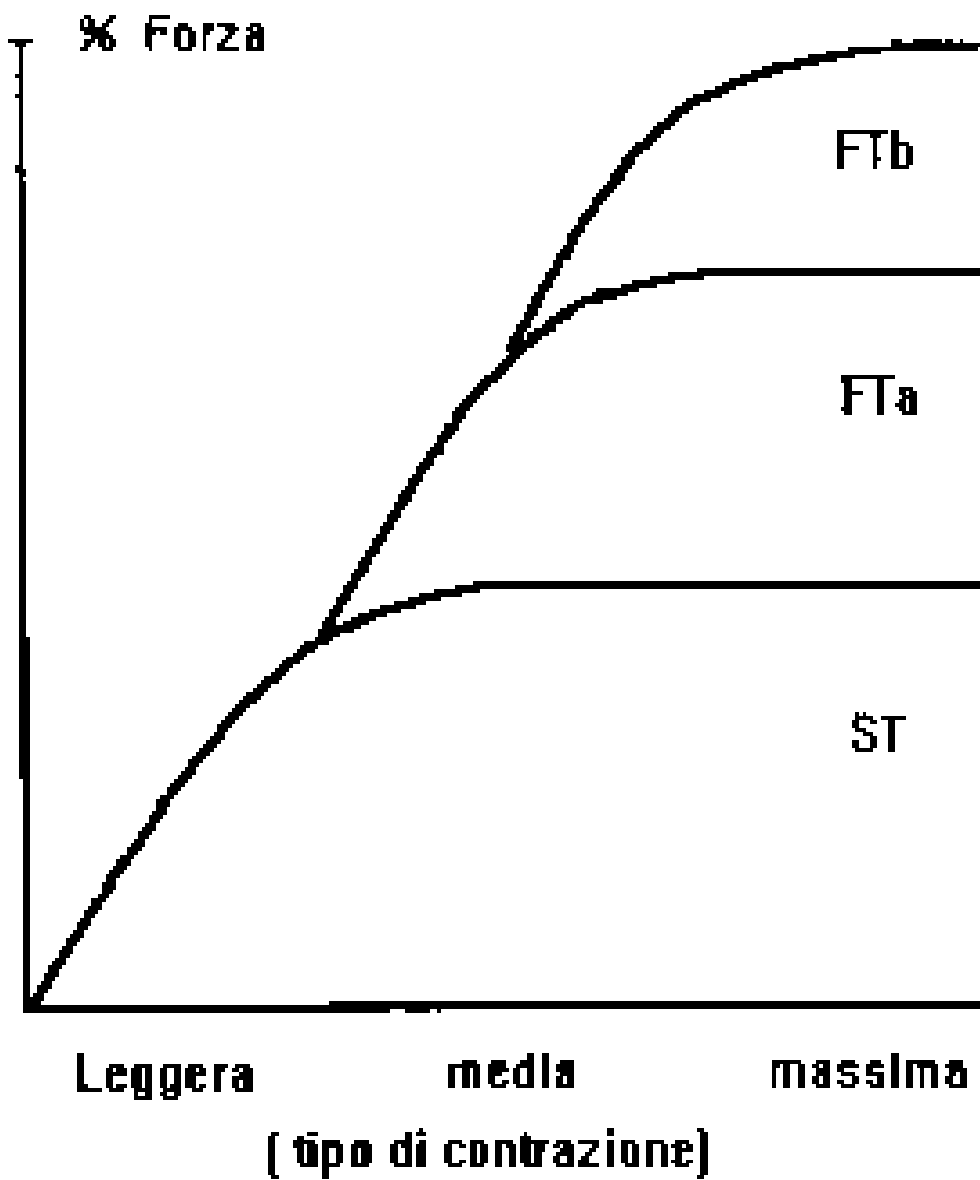


- Fibra rapida
- Forza moderata
- Scarsa affaticabilità



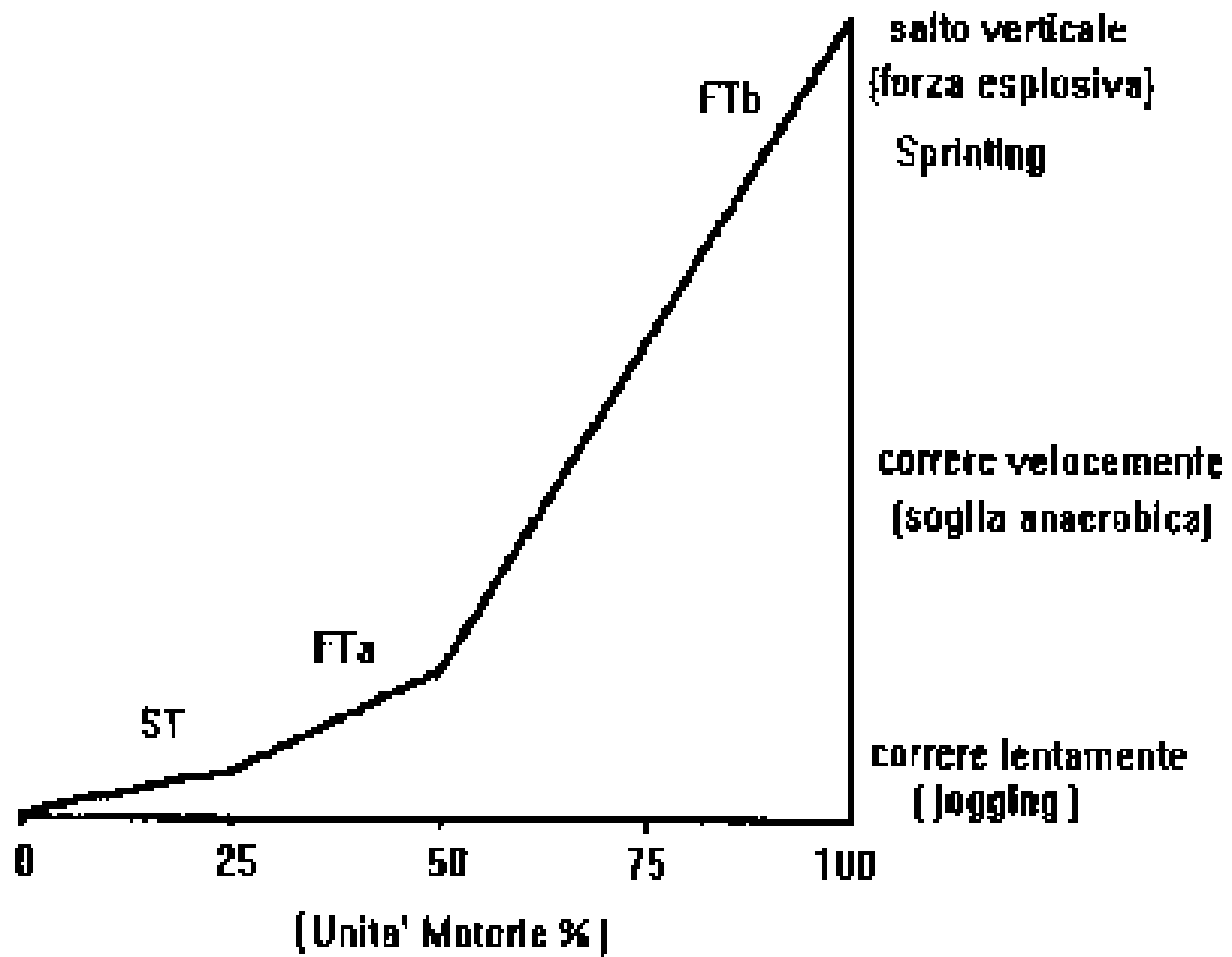
- Fibra lenta
- Forza bassa
- Scarsa affaticabilità



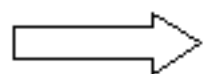


**Principio di Hennmann**

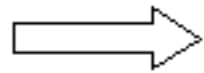




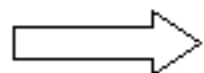
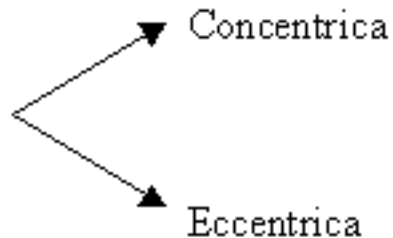
# La Contrazione Muscolare



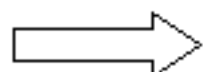
**Isometrica**



**Isotonica**

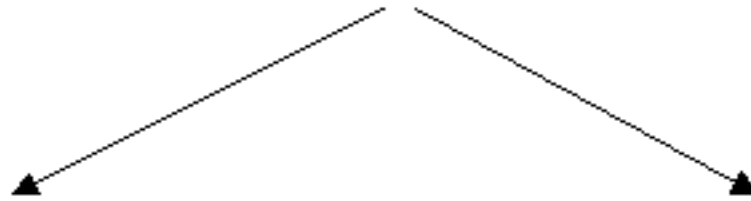


**Isocinetica**



**Pliometrica**

# CAPACITA' MOTORIE



## Capacità Condizionali

Processi energetici e metabolici



**Forza**



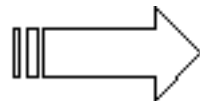
**Velocità**



**Resistenza**

## Capacità Coordinative

Processi di organizzazione, controllo e regolazione del movimento

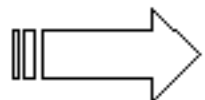


**Flessibilità**

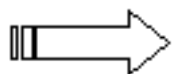
Possibilità di eseguire movimenti di grande ampiezza

# Le Capacità Condizionali

## La Velocità



la capacità che permette di realizzare azioni motorie nel minor tempo possibile.



dipende da numerosi fattori di origine nervosa e muscolare:

→ Tempo di reazione motoria

→ Rapidità di azione

**Attivazione di un numero elevato di fibre (FT)**

**Velocità con cui si contraggono**

**Grado di automazione del gesto**

**Livelli di forza del muscolo**

**Adeguate controllo degli antagonisti**

→ Frequenza dei movimenti (sfruttare il pre-stiramento)

→ Ampiezza del movimento