**Table 2-2**. Wild-type animals move faster in response to head or tail touch while GABAergic mutant strains move slower or unchanged.

After either head or tail harsh touch, wild type animals (n=9) moved away at significantly higher translocation speed, undulation frequency and amplitude, while the mutant animals (n=9 for each strain) moved with unchanged or lower translocation speed and undulation frequency, compared to their locomotion before the stimulation. All the animals performed deeper bending with higher amplitude after stimulation while their wavelength did not change. Calculated probabilities for null hypotheses (p-value) below 0.05 were considered significant and are in red.

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|  |  |  | **Head Stimulation** | **Tail Stimulation** |
| **Wild Type** |   |   | Mean | p \* | mean | p |
| Speed\*\*(µm/s) | Before | 199±51 | <0.0001more | 244±76 | 0.0025more |
| After | 345±51 | 366±62 |
| Frequency(Hz) | Before | 0.39±0.07 | 0.0096more | 0.44±0.12 | 0.0059more |
| After | 0.45±0.06 | 0.58±0.08 |
| Amplitude(µm) | Before | 183±30 | 0.0003more | 184±35 | 0.0037more |
| After | 323±41 | 260±60 |
| Wavelength(µm) | Before | 662±109 | 0.1649 | 629±88 | 0.7068 |
| After | 630±50 | 615±46 |
| ***unc-25*** | Speed(µm/s) | Before | 143±36 | 0.0170less | 151±29 | 0.6912 |
| After | 76±48 | 131±101 |
| Frequency(Hz) | Before | 0.33±0.07 | 0.0262less | 0.36±0.07 | 0.1864 |
| After | 0.26±0.07 | 0.30±0.11 |
| Amplitude(µm) | Before | 166±55 | 0.0462more | 153±42 | 0.0008more |
| After | 194±54 | 214±39 |
| Wavelength(µm) | Before | 547±40 | 0.379 | 601±46 | 0.9813 |
| After | 605±202 | 601±54 |
| ***unc-46*** | Speed(µm/s) | Before | 117±27 | 0.1578 | 123±28 | 0.0019more |
| After | 54±96 | 171±44 |
| Frequency(Hz) | Before | 0.32±0.13 | 0.0062less | 0.38±0.13 | 0.0359less |
| After | 0.20±0.09 | 0.30±0.09 |
| Amplitude(µm) | Before | 174±46 | 0.0258more | 167±33 | 0.0013more |
| After | 224±53 | 229±39 |
| Wavelength(µm) | Before | 668±80 | 0.0858 | 683±97 | 0.0107less |
| After | 584±77 | 572±71 |
| ***unc-49*** | Speed(µm/s) | Before | 140±28 | 0.0054less | 139±15 | 0.8742 |
| After | 67±82 | 143±32 |
| Frequency(Hz) | Before | 0.29±0.06 | 0.192 | 0.25±0.04 | 0.2661 |
| After | 0.25±0.13 | 0.33±0.06 |
| Amplitude(µm) | Before | 176±41 | 0.1673 | 181±50 | 0.062 |
| After | 217±30 | 220±48 |
| Wavelength(µm) | Before | 585±88 | 0.5487 | 562±47 | 0.9082 |
| After | 578±122 | 600±114 |
| \* p value, paired two-tail T-Test |  |  |  |
| \*\*Speeds are the absolute values regardless of moving directions.  |