Introduction When bending the rods for thoracic spine, it is important to define not only the angular values of thoracic kyphosis (TK), but also its apical vertebra and the number of vertebrae in TK. From literature, some authors suggest a physiological position of TK apex on T9, whereas others suggest T8 or T7. The number of vertebrae in TK is poorly described. Aim: to assess the position of apex and number of vertebrae included in TK in a cohort of normal subjects, with respect to age, sex, and type of back according with Roussouly classification. Methods Sagittal radiographs were collected on 2599 individuals without spine pathology (1488 females, 1111 males) aged from 5 to 93 years (Y) from a national multicenter registry from Western Europe. Characteristics of global thoracic kyphosis were automatically defined after graphic identification of anatomical landmarks by a trained operator per center using a dedicated spine software. Results TK apex was located on T7 for 31% of subjects, T6 for 28%, T8 for 15%, T5 for 12%, T9 for 6%, T4 for 3% and T10 for 3%. T1-T3 and T11-L3 segments together accounted for 2%. Taking into account the age, the apex was between T5 and T8 for 87% of the subjects between 5 and 34 years old, 91% of the subjects between 35 and 49 years old, for 85% of the subjects between 50 and 79 years old, and for 67% of the subjects exceeding 80 y. The modal apex was T7 before 15 Y (28%) and >50 Y (33%), and T6 for 15-49 Y (33%). Concerning the Roussouly groups, the modal value of apical vertebra was T6 in the type 4 group (32%), while it was T7 in the type 1 (25%), type 2 (33%) and both types 3 (31%) groups. Apex distribution was significantly different between Roussouly's groups and between age groups ($p<0.001$). The mean number of vertebrae in TK was 10.5 before 50 Y, 10.8 between 50 and 79 Y, and 11 after 80 Y ($p<0.001$). It was of 12.7 for type 1, 10.5 for types 2 and 3, 10.2 for anteverted type 3, and 10.1 for type 4 ($p<0.001$) groups. From multivariate ANOVA, the number of vertebrae in TK was associated ($p<0.001$) with female sex (coefficient -0.33) and type of back (coefficient +2.1 for type 1, -0.24 for anteverted type 3, and -0.4 for type 4). Conclusion From a cohort of normal subjects, the position of TK apex was mainly between T5 and T8 in children and young adults, while it varied more in the elderly. The most represented apical levels were T6 and T7 regardless of age, with more T6 in the type 4 group. The average number of vertebrae in TK was between 10 and 11 with a slight increase with age . Females, type 4, and anteverted type 3 tend to have fewer vertebrae in TK, while type 1 has more. These data could be considered when bending the rods for the thoracic spine.